More than thirty years of publishing research articles related to the theory and applications of psychological type and the Myers-Briggs Type Indicator® instrument.

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> Many predictions about psychological type and archetype were confirmed in this study, which combined data for the Pearson-Marr Archetype Indicator® and self-reported type preferences and stress levels.

The Pearson-Marr Archetype Indicator® and Psychological Type

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ABSTRACT

Of Carl Jung's many contributions to the field of psychology, two stand out: the concepts of *psychological type* and *archetype*. The Myers-Briggs Type Indicator® (MBTI®) instrument is a well known assessment of type, with many years of research and application. More recently, the Pearson-Marr Archetype Indicator® (PMAI®) has been developed using the self-report assessment approach, as does the MBTI instrument, with the goal of measuring the salience of 12 common archetypes in an individual's life. The current research tested predictions about type-archetype relationships derived from Carol Pearson's archetype theory by analyzing PMAI results for different self-reported type preferences. All of the main and most of the secondary predictions were confirmed, providing additional validity evidence for the PMAI instrument. The possible uses of a combined PMAI-type assessment strategy and directions for future research are discussed.

Note: For the Myers-Briggs Type Indicator® (MBTI®) instrument, the eight preference categories are the following: Extraversion (E) versus Introversion (I), Sensing (S) versus Intuition (N), Thinking (T) versus Feeling (F), Judging (J) versus Perceiving (P).

INTRODUCTION

Carl Jung's (Jung, 1959) far-ranging interests and

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writings have earned him an enduring influence that embraces a variety of constituencies, from artists to personality theorists, from therapists to corporate consultants, from mythologists to scientists. Perhaps the widest application of Jung's concepts and theories is through the assessment of *psychological type*, which is most often accomplished with the Myers-Briggs Type Indicator® instrument (MBTI®).

In the last few years, a new instrument has been developed with the goal of expanding this assessment approach to encompass another of Jung's important concepts, the *archetype*. The Pearson-Marr Archetype Indicator® (PMAI®) assessment is a 72-item self-report questionnaire that attempts to assess the relative salience and influence of 12 different archetypes (Innocent, Orphan, Warrior, Caregiver, Seeker, Lover, Creator, Destroyer, Ruler, Magician, Sage, and Jester) potentially active in a person's present life situation. The reliability of the PMAI meets reasonable standards, with test-retest reliability of the 12 scales averaging .72 and coefficient alphas averaging .68. Validity evidence reported in the manual includes expected relationships to other psychometric instruments (e.g., the Marlowe-Crowne Social Desirability Scale, Crowne & Marlowe, 1960), predicted career satisfaction based on characteristics of difference archetypes, and some alignment of the archetypal scales with the constructs that emerged from a factor analysis of subject responses (Pearson & Marr, 2003).

Archetypes are commonly understood as the universal themes of our shared human existence, evident in the commonality of characters and story lines in our myths, fairy tales, novels, and films. In PMAI terms, Luke Skywalker of the *Star Wars* movies begins his journey as an abandoned Orphan, becoming next a Seeker and ultimately a Warrior. The fictional manifestations of archetypes are considered to be indirect expressions of "the contents of the collective unconscious" (Jung, 1959, p. 4). Boeree (2006) described archetypes using the metaphor of "a black hole in space: You only know it's there by how it draws matter and light to itself."

Although universal and indirectly expressed, an archetype "takes its colour from the individual consciousness in which it happens to appear" (Jung, 1959, p. 5). That observation invites use of an instrument like the PMAI to assess such individual differences in archetypal expression. Measuring archetypes, however, is a challenging proposition: Not only are they unconscious and indirectly expressed, but they may also be "altered by becoming conscious" (Jung, p. 5), suggesting that the measurement process itself may affect the measurement.

The focus of the present research is thus the PMAI measurement process itself—specifically, the ability of PMAI scores to accurately predict results on another psychometric instrument. Confirming a predicted relationship of a new instrument to a more established construct is one step of many in establishing the newer tool's validity.

Psychological type is one such well established construct. In addition to type's widespread familiarity and the body of evidence supporting its assessment (e.g., Myers, McCaulley, Quenk, & Hammer, 1998), type has its origins, as does archetype, in the work of Carl Jung. Therefore, the present study derived (from the work of Pearson & Marr, 2002, 2003) and tested several predictions relating PMAI archetype scales to reported psychological type preferences, with the goal of testing the accuracy of Pearson and Marr's archetypal conceptualizations and contributing (or failing to contribute) evidence for the PMAI's validity.

Type, Archetype, and Stress Hypotheses

Based on type concepts (e.g., Myers et al., 1998) and descriptions of each of the 12 archetypes assessed by the PMAI (from Pearson & Marr, 2002, the source of all quotes for the archetype hypotheses), the following relationships between PMAI archetype scales and type preferences were predicted. In addition, when appropriate based on archetype descriptions, this study predicted a relationship between archetype scores and self-reported stress levels. For each set of hypotheses, the first prediction is the strongest and clearest, based on type and archetype descriptions, and hence is considered the main hypothesis for each archetype.

Innocent archetype: Four hypotheses were tested.

1. E > I. Pearson and Marr (2000, p. 11) described Innocents as "[having] a basic trust in others" and "[relying] too much on others," clearly implying a preference for an Extraverted orientation of energy.
2. P > J. Innocents also "hope that others will come to your aid, and often they do" (p. 11), indicative of more passivity and less decisiveness.
3. F > T. The Innocent's faith in "the world as a safe place" (p. 11) is more compatible with a Feeling than a Thinking functional preference.

4. Less stress. Because Innocents look to others to assume responsibility, they should report less stress in their lives.

Orphan archetype: Two hypotheses were tested.

1. F > T. Orphans exhibit a "deep empathy for others," "try to help people support one another to cope," and "band together with others to advocate for those who are weak, hurting, poor, or otherwise in trouble" (Pearson & Marr, 2002, p. 13). This compassion is more descriptive of a Feeling than a Thinking style of judgment.
2. Higher stress. The somewhat pessimistic attitude of Orphans ("an acute awareness that whatever can go wrong will"—p. 13) should be associated with higher stress levels.

Warrior archetype: Three predictions were tested.

1. T > F. The tough-mindedness of Warriors ("you focus on how tough or skilled people are" and "you assume that the tough prevail," both quotes from p. 15) is indicative of a Thinking preference.
2. J > P. Warriors are "attracted to either/or scenarios" and tend to "view the worlds in black and white, avoiding the gray" (both quotes from p. 15).
3. More stress. A willingness to "face the most fierce antagonist or challenge" and "a code of honor that requires a high level of discipline" (p. 15 for both quotes) suggests that the Warrior style should be more stressful.

Caregiver archetype: Three predictions were tested.

1. F > T. Caregivers "assume you should help others" and at their best are "full of love and caring . . . kind, compassionate" (all Caregiver quotes from p. 17).
2. E > I. Caregivers focus their care outwardly. They "model altruism" and seek to "make the world a safer and gentler place for everyone" by creating "nurturing environments where people can heal or grow."
3. Higher stress, as Caregivers tend to "martyr themselves" and "undermine their health."

Seeker archetype: Three predictions were tested.

1. N > S. Seekers see possibilities—the "grass is always greener somewhere else" (all Seeker quotes from p. 19).
2. P > J. Seekers tend to be less decisive and more open, at the risk of being "a perpetual Peter Pan."
3. More stress. Seekers rarely relent in their self-improvement efforts, and their ongoing restlessness and quest "to climb a mountain or the ladder of success" means that they tend to "lose those they love."

Lover archetype: Five predictions were tested.

1. F > T. For Lovers, not surprisingly, "love is the answer." Lovers have "a knack for helping individuals and groups appreciate one another and hence become close" (all Lover quotes from p. 21).
2. E > I. The Lover style directs its love outwardly, towards others.

3–4. P > J and N > S. Lovers seek alternatives and possibilities, with a "tendency to be promiscuous."

5. Less stress. A Lover is a "romantic and bliss seeker." If Lovers find what they seek, that will translate into a less stressful life.

Destroyer archetype: Two predictions were tested.

1. Higher stress. Destroyers act in reaction to perceived injustice with a "tendency to lash out." They "may blow up at people, break things, and harm themselves and others," which may "[trigger] some deep existential questions" (all Destroyer quotes from p. 23).
2. F > T. Destroyers respond emotionally, not logically, to injustice.

Creator archetype: Three predictions were tested.

1. N > S. Creation begins with imagination: "What can be imagined can be created." Creators "notice the need for new inventions or interpretations" (all Creator quotes from p. 25).
2. T > F. Creators "have a highly developed critic and generally notice every flaw in what you and others do."
3. P > J. Creators have a tendency to "[take] on so many projects" they "may become overwhelmed."

Ruler archetype: Four predictions were tested.

1. J > P. Rulers must be decisive. As a Ruler, your "highly developed sense of responsibility and order" leads you to "assume you should exercise control" and "put in place policies, procedures and systems" (all Ruler quotes from p. 27).

2. F > T. In the Pearson-Marr conception of the Ruler archetype, control is based on protective benevolence: "You reign for the good of those who follow you."
3. E > I. Rulers by necessity must direct their energies towards their followers and subjects, as exemplified by their tendency to "recruit others and groom or coach them."
4. More stress. The responsibilities of control also imply higher stress.

Magician archetype: Two predictions were tested.

1. N > S. The description for Magician offered by Pearson and Marr sounds very Intuitive: "you tend to notice serendipity, synchronicity, the interrelationship of events and seemingly disparate parts," while "lacking common sense" (all Magician quotes from p. 29).
2. F > T. Magicians have a "healing presence" and seek a harmonious life-style "in keeping with [their] purpose."

Sage archetype: Three predictions were tested.

1. T > F. The Sage is concerned with knowledge and "motivated by a genuine hunger for the truth." Sages also "[excel] at evaluating the merits of relative truths," exhibiting a tendency "to notice methodological flaws" as they "retreat to their heads" (all Sage quotes from p. 31).
2. N > S. The Sage can "see patterns in apparently discrepant events."
3. P > J. The Sage is not quick to judgment: "You can see clearly how dangerous it is when people take action before they know what they are doing."

Jester archetype: Three predictions were tested.

1. Less stress. Jesters "assume that life is meant to be enjoyed," seeking to "bring out the joy" and "enjoy the gift of living, even in stressful or difficult times" (all Jester quotes from p. 33).
2. E > I. The joy of Jesters is outwardly focused as they seek to "bring out the joy in life for everyone around [them]."
3. P > J. Jesters "look for ways to enjoy the process of dealing with the issue" and "are drawn to new experiences, the more the merrier."

Gender and Age Hypotheses

Although the effects of gender and age can be obscured by powerful, shifting cultural norms, Pearson (e.g., 1991) indicated that there are relationships between archetypal patterns and gender and age, based largely on traditional sex roles and developmental stages across a lifespan.

Gender. Pearson observed that "gender differences . . . tend to center around four archetypes" (1991, p. 260). To her, these archetypal differences are deeply rooted in "the ancient divisions of labor by gender in hunting and gathering days" (p. 260). Women are socialized to favor Caregiver and Lover roles, whereas men gravitate towards Warrior and Seeker. These general tendencies, however, are mitigated by two factors: First, as they mature, men and women may develop the less-preferred archetypes of their gender, and, second, as societal and cultural norms evolve, an increasing number of men or women may adopt nontraditional roles.

Despite individual differences, however, overall trends should prevail, leading to two pairs of gender predictions to test:

1. Females > Males on Caregiver and Lover.
2. Males > Females on Warrior and Seeker.

Age. Pearson's theory (e.g., Pearson, 1991) describes a life-stage model in which "each major chronological stage of life calls forth two archetypes" (p. 253). The relevant archetypes correspond to the life issues that tend to predominate at a particular age, and these archetypal pairs "seem to be in opposition and . . . press for resolution" (p. 235). For example, the prevailing issue for adolescence and young adulthood is presumed to be *identity*, and the relevant archetypes are Seekers (who tend to "find out who they are by differentiating themselves from others"—p. 237) and Lovers (who discover their identity by "discovering who and what they love"—p. 238). Individuals are likely to favor one or the other of each pairing, at least initially, although maturation may bring development of the opposing tendencies and, ideally, their integration.

Note that, as with gender, age is not unfailingly tied to particular archetypal influences. Pearson (1991) observed that "archetypes . . . can emerge at any time of life" (p. 236), and Pearson and Marr (2003) suggested that "a given life situation may call forth a particular archetype regardless of what archetype is predominant in that period of a person's life" (p. 8). Nonetheless, despite such potential mitigating individual differences,

Pearson's life-stage archetypal model suggests six pairs of predictions:

1. Children will score higher than other ages on Innocent and Orphan.
2. Ages 15–25 will score higher on Seeker and Lover.
3. Early Adults (ages 26–39) will score higher on Warrior and Caregiver.
4. Adults in mid-life transition (ages 40–54) will score higher on Destroyer and Creator.
5. Mature Adults (ages 55–65) will score higher on Magician and Ruler.
6. Old Age Adults (>65 years) will score higher on Sage and Jester.

METHOD

The Center for Applications of Psychological Type, Inc. (CAPT) has made the PMAI available as an online instrument (in addition to written administration) since 2004. The data collected from participants taking the PMAI online over a designated time period created the samples analyzed in this report. Note that this sample is subject to unknown self-selection biases, as completion of the PMAI was provided to interested parties for a nominal fee.

In addition to completing the PMAI, each subject was asked for demographic information (age, gender, educational level, and occupation), a self-rating of stress level (5-point scale) over "the last few months," and whether he or she had "taken the MBTI instrument." A positive response to the MBTI question was followed by a request to voluntarily report their four type preferences (E vs. I, S vs. N, T vs. F, J vs. P). Participants provided their contact information and thus had no reason to expect anonymity in their responses.

There is reason for confidence in the accuracy of these self-reports of type preference. CAPT's clientele is largely drawn from the professional type community, consisting of individuals qualified to administer the MBTI instrument. They are thus well-versed in the theory and practice of psychological type and most have validated their type preferences.

RESULTS

Complete data were available for 1,407 subjects. Of these, 835 reported their type preferences. Five reported only three letters (e.g., ISTx), leaving a sample of 830 who reported all four. Approximately twice as many women (n = 899, or 63.9%) as men (n = 482, 34.3%) were included in the total sample (26 respondents, or 1.8%, did not report their gender). The percentage of each gender that also reported whole type was nearly identical (64.2% women, 35.8% men). Thirty of the respondents did not report an age; of the remaining 1,377, ages ranged from 12 to 78. Only 3 respondents were younger than 20, and only 21 were 66 or older. Both the mean and the median ages were 44.

Whole Type. The distribution for the 830 PMAI-takers who reported their type is shown in **Table 1**. (**See page 57**.)

The most striking type domain preference that characterizes the PMAI sample is an overwhelming preference for Intuition (86.6%) over Sensing (13.4%). This very skewed distribution represents 3.25 times as many N preferences as the U.S. national representative sample (Myers et al., 1998) and is statistically significant at the .001 level. Type practitioners typically favor N over S, but the PMAI sample incidence is also significantly greater than CAPT's client database's (primarily type-practitioner) incidence of N (Macdaid, 1993; 80.4%; $p < .001$). Similarly, with respect to both the U.S. national sample and CAPT's client base, the PMAI sample includes more Is (1.15 x U.S. and 1.22 x CAPT) and more Ps (1.15 x U.S. and 1.12 x CAPT). T and F preferences did not significantly differ in proportion from either the U.S. or CAPT client samples, although significantly more males in the PMAI sample (58.3%)—almost twice as many—reported a preference for F than in the U.S. male population (30.4%). The modal type for our PMAI sample was thus INFP (over 19%), followed by ENFP.

Archetype. The means for the different archetypes are shown in **Table 2**. (**See page 57**.)

Comparing these means to those of previous samples, whose participants were "drafted" into completing the PMAI as part of groups assembled for other purposes, allows me to speculate about the self-selection biases of participants actively seeking assessment. (Because the raw data from the previous samples were unavailable, I was unable to perform statistical tests of the differences.) The average differences between the means are shown in the final column of **Table 2**.

For the current sample, Sage, Seeker, Magician, and Creator means were noticeably higher than in past samples, with a mean difference of at least 1.66 points, compared to differences of less than 1.00 for the other eight archetypes. This pattern is consistent with the archetype scores that might be expected based on the

Table 1. Type Distribution for PMAI Respondents and SRTT Comparisons With U.S. National Representative Sample.

The Sixteen Complete Types

ISTJ *n* = 34 (4.1%) *I* = 0.35*** + + + +	ISFJ *n* = 18 (2.2%) *I* = 0.16*** + +	INFJ *n* = 85 (10.2%) *I* = 7.00*** + + + + + + + + + +	INTJ *n* = 105 (12.7%) *I* = 6.14*** + + + + + + + + + + + + +
ISTP *n* = 7 (0.8%) *I* = 0.16*** +	ISFP *n* = 6 (0.7%) *I* = 0.08*** +	INFP *n* = 159 (19.2%) *I* = 4.37*** + + + + + + + + + + + + + + + + + + +	INTP *n* = 70 (8.4%) *I* = 2.59*** + + + + + + + +
ESTP *n* = 8 (1.0%) *I* = 0.22*** +	ESFP *n* = 5 (0.6%) *I* = 0.07 +	ENFP *n* = 116 (14.0%) *I* = 1.73*** + + + + + + + + + + + + + +	ENTP *n* = 66 (8.0%) *I* = 2.49*** + + + + + + + +
ESTJ *n* = 14 (1.7%) *I* = 0.19*** + +	ESFJ *n* = 19 (2.3%) *I* = 0.19*** + +	ENFJ *n* = 62 (7.5%) *I* = 3.04*** + + + + + + + +	ENTJ *n* = 56 (6.8%) *I* =3.76*** + + + + + + +

Dichotomous Preferences

E	346	(41.7%)	***I = 0.85
I	484	(58.3%)	***I = 1.15
S	111	(13.4%)	***I = 0.18
N	719	(86.6%)	***I = 3.25
T	360	(43.4%)	*I* = 1.08
F	470	(56.6%)	*I* = 0.95
J	393	(47.4%)	***I = 0.87
P	437	(52.7%)	***I = 1.15

Pairs and Temperaments

IJ	242	(29.2%)	*I* = 1.01
IP	242	(29.2%)	***I = 1.34
EP	195	(23.5%)	*I* = 0.98
EJ	151	(18.2%)	***I = 0.72
ST	63	(7.6%)	***I = 0.25
SF	48	(5.8%)	***I = 0.13
NF	422	(50.8%)	***I = 3.10
NT	297	(35.8%)	***I = 3.47
SJ	85	(10.2%)	***I = 0.22
SP	26	(3.1%)	***I = 0.12
NP	411	(49.5%)	***I = 2.62
NJ	308	(37.1%)	***I = 4.77
TJ	209	(25.2%)	*I* = 1.05
TP	151	(18.2%)	*I* = 1.13
FP	286	(34.5%)	**I = 1.16
FJ	184	(22.2%)	***I = 0.74
IN	419	(50.5%)	***I = 4.52
EN	300	(36.1%)	***I = 2.33
IS	65	(7.8%)	***I = 0.20
ES	46	(5.5%)	***I = 0.16
ET	144	(17.4%)	*I* = 0.97
EF	202	(24.3%)	***I = 0.78
IF	268	(32.3%)	*I = 1.14
IT	216	(26.0%)	*I = 1.17

Jungian Types (E)

	n	%	*Index*
E–TJ	70	8.43	0.81
E–FJ	81	9.76	0.66***
ES–P	13	1.57	0.12***
EN–P	182	21.93	1.95***

Jungian Types (I)

	n	%	*Index*
I–TP	77	9.28	1.07
I–FP	165	19.88	1.51***
IS–J	52	6.27	0.25***
IN–J	190	22.89	6.50***

Dominant Types

	n	%	*Index*
Dt. T	147	17.71	0.93
Dt. F	246	29.64	1.06
Dt. S	65	7.83	0.21***
Dt. N	372	44.82	3.03***

***N* = 830 + = 1% of *N* *I* = Selection Ratio Index *p <.05 **p <.01 ***p <.001

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Table 2. Archetype Means (*n* = 830) for CAPT PMAI-Type Sample.

Archetype	Mean	Standard Deviation	Rank	Mean Diff From Previous Samples
Innocent	19.76	3.70	10	0.39
Orphan	15.59	4.49	12	-0.77
Warrior	21.35	3.95	9	-0.39
Caregiver	21.78	3.85	8	-0.97
Seeker	22.60	3.77	7	1.89
Lover	22.90	3.84	5	0.47
Destroyer	17.76	4.89	11	-0.69
Creator	25.00	3.64	2	1.96
Ruler	23.90	3.17	4	0.79
Magician	24.68	3.90	3	2.06
Sage	25.43	2.86	1	1.66
Jester	22.42	4.14	6	0.17

demographics of the study's sample and Pearson and Marr's (2002) archetypal descriptions. For example, Pearson and Marr characterized Sages as interested in scholarship and learning, and the most outstanding characteristic of the current samples is arguably its highly educated (over 50% with graduate degrees) demographic. Pearson and Marr also described Seekers as interested in self-improvement, Magicians as "highly self-aware" (p. 29) individuals interested in how "the mind and the spirit work" (p. 29), and Creators as interested in new inventions and methodologies. These descriptions are consistent with the characteristics of individuals interested in self-assessment. The biases of this study's self-selected sample may thus be interpreted as anecdotal support for the accuracy of Pearson and Marr's archetype descriptions.

Archetypes, Type Preferences, and Stress Summary Results. There were 37 predicted relationships between archetype scores, type preferences, and stress, as outlined in the Introduction. The type preference hypotheses were first tested using four multivariate analyses of variance (MANOVA), with each preference dichotomy (E–I, S–N, T–F, J–P) as an independent variable and the 12 archetype scores as dependent variables. As the *F*-ratios for the Hotelling's Trace values for all four MANOVAs were significant (all $p < .001$), these tests were followed by a univariate (ANOVA) analysis comparing means on each archetype for the four MBTI dichotomies. These univariate *F*-values are the results reported in the following sections. The stress hypotheses were tested by dividing subjects' scores on each archetype as close to the median as possible (whole number scoring prevented an exact 50–50 break), and conducting two-tailed *t*-tests with above/below median as the independent variable and stress scores (1–5) as the dependent variable.

Of the 37 total hypotheses, 28 were confirmed at a probability level of less than .05 (26 of the 28 at .01 or lower), with another 2 hypotheses approaching conventional statistical significance levels ($p < .073$ and $p < .081$). These are summarized below in **Table 3**. (**See page 59**.) All 12 main hypotheses (one for each archetype) were strongly confirmed, 11 with a probability level of .001 or lower and one with $p < .004$. In summary, these results provide strong support for the predictions derived from Pearson and Marr's (2002, 2003) archetypal descriptions.

Table 3. Summary of Significant Results for Type and Archetype Preferences.

Archetype	E–I	S–N	T–F	J–P	Stress
Innocent	**E*** **			P*	Less***
Orphan	I***		**F*** **		More***
Warrior	E***		**T*** **		
Caregiver			**F*** **		More**
Seeker		**N*** **		P**	More***
Lover	E***	N*	**F*** **		
Destroyer	I***	N**	F*		**More*** **
Creator	E***	**N*** **		P***	More*
Ruler	E***		*T*** **	**J*** **	More***
Magician	E**	**N*** **	**F*** **		
Sage		N***	**T*** **		
Jester	E***			P***	**Less****

Note: **Bold** = main hypothesis confirmed; Background shading = unpredicted finding; *italics* = opposite to predicted result. *$p < .05$; ** $p < .01$, *** $p < .001$.

Individual Archetypes

Innocent. Three of four predictions were confirmed, with the fourth trending in the predicted direction ($p < .073$).

- Extraverts (mean = 20.59) scored higher than Introverts (mean = 19.17; $F[1, 831] = 29.92$, $p < .001$).
- Feeling preference (mean = 19.97) scored marginally higher than Thinking preference (mean = 19.50; $F[1, 831] = 3.23$, $p < .073$).
- Persons who preferred Perception (mean = 20.07) scored significantly higher than those who preferred Judging (mean = 19.44; $F[1, 830] = 5.77$, $p < .017$).
- High Innocents (above-median scorers on the Innocent archetype) reported less stress in their lives than Low Innocents (stress scale means of 3.35 and 3.72, respectively; $t[1,373] = 7.88$, $p < .001$). Innocent scores were negatively correlated with reported stress levels as well ($r[1,373] = -2.5$, $p < .01$).

Orphan. Both hypotheses were confirmed. An unpredicted significant difference relating to Extraversion–Introversion was discovered in the analyses as well.

- Subjects with a Feeling preference (mean = 16.09) scored significantly higher than those with a Thinking preference (mean = 14.91; $F[1, 831] = 14.51$, $p < .001$).
- High-Orphan scorers (stress scale mean = 3.73) reported higher levels of stress than Low Orphans (mean = 3.30; $t[1,373] = 9.45$, $p < .001$). Orphan scores were positively correlated with stress as well ($r[1,373] = .30$, $p < .01$).
- Introverts had higher Orphan scores than Extraverts (means of 16.37 and 14.47, respectively; $F[1, 831] = 38.31$, $p < .001$).

Warrior. One of three Warrior hypotheses (the main prediction) was confirmed, and an additional unpredicted relationship emerged.

- A Thinking preference (mean = 22.52) was associated with higher Warrior scores than a Feeling preference (mean = 20.51; $F[1, 831] = 54.00$, $p < .001$).

- Js did not score significantly higher than Ps, although the mean did differ in the predicted direction (21.60 vs. 21.18; $p < .136$).
- High Warriors did not report higher stress levels; in fact, the High-Warrior mean (3.48) was slightly lower than the Low-Warrior mean (3.56), and there was a low but significant (r[1,373] = -0.7, $p < .01$) negative correlation between Warrior scores and stress.
- Subjects with an Extravert preference (mean = 22.71) had significantly higher Warrior scores than those who preferred Introversion (mean = 20.41; F[1, 831] = 72.06, $p < .001$), an unpredicted result.

Caregiver. Two of the three Caregiver hypotheses were confirmed.

- Feeling preference (mean = 23.03) outscored Thinking preference (mean = 20.18; F[1, 831] = 117.79, $p < .001$), by a wide margin.
- Extraverts (mean = 22.04) did not score significantly higher than Introverts (mean = 20.18).
- High Caregivers reported more stress (mean of 3.62 vs. 3.42, t[1,373] = 4.09, $p < .001$), and Caregiver scores correlated positively with stress levels (r[1,373] = .10, $p < .01$).

Seeker. All three Seeker predictions were confirmed.

- Intuitive types scored higher for Seeker than Sensing types (mean of 22.80 and 21.15, respectively; F[1, 831] = 18.55, $p < .001$).
- Perceiving preference (mean = 22.98) scored higher than Judging (mean = 22.15; F[1, 830] = 10.02, $p < .002$).
- High Seekers reported more stress than Low Seekers (means of 3.69 and 3.34, respectively; t[1,373] = 7.31, $p < .001$), and Seeker scores correlated positively with stress (r[1,373] = .22, $p < .01$).

Lover. Three of the five Lover hypotheses were confirmed, with a fourth approaching significance.

- Subjects with a Feeling preference (mean = 24.14) scored almost three points higher on Lover than those with a Thinking preference (mean = 21.29; F[1, 831] = 116.31, $p < .001$).
- Extraverts outscored Introverts (means of 24.09 and 22.06, respectively; F[1, 831] = 54.75, $p < .001$).
- Perceiving preference subjects (mean = 23.14) tended towards higher scores than Judging preference participants (mean 22.65), but the difference did not reach statistical significance (F[1, 830] = 3.06, $p < .081$).
- Participants who preferred Intuition (mean = 23.01) scored significantly higher than those preferring Sensing (mean = 22.20; F[1, 831]= 3.88, $p < .049$).
- Contrary to prediction, there was no statistically significant difference between High and Low Lovers in reported levels of stress, and stress ratings did not correlate significantly with Lover scores.

Destroyer. Two predictions were made and both were confirmed; additionally, two significant unpredicted relationships were revealed by the analysis.

- High Destroyers (stress scale mean = 3.81, the highest for any high archetype level) reported significantly more stress than Low Destroyers (stress scale mean = 3.23, the lowest average for any low archetype score; t[1,373] = 12.78, $p < .001$). Destroyer scores also had the highest correlation with stress of any archetype (r[1,373] = .41, $p < .01$).
- Feeling preference subjects outscored those with a Thinking preference on the Destroyer archetype (means of 18.10 and 17.29, respectively; F[1, 831] = 6.04, $p < .014$).
- Higher Destroyer scores were also associated with preferences for Intuition over Sensing (17.90 vs. 16.67, respectively; F[1, 831] = 6.49, $p < .011$) and Introversion over Extraversion (18.20 vs. 17.12, respectively; F[1, 831] = 10.80, $p < .001$).

Creator. Two of three predictions were confirmed, and two unpredicted additional significant relationships were found.

- As predicted, Creator archetype scores were much higher for subjects with a preference for Intuition (mean = 25.51) than for those preferring Sensing (mean = 21.71, F[1, 831] = 123.20, $p < .001$).
- Contrary to prediction, Thinking Creator scores were not significantly higher than Feeling Creator scores (means of 25.05 and 24.99, respectively).
- The analyses confirmed that mean scores for subjects with a Perceiving preference (mean = 25.41)

were higher on the Creator archetype than those with a Judging preference (mean = 24.56; $F[1, 830] = 11.86$, $p < .001$).

- Extraverts scored higher than Introverts (means of 25.57 and 24.60, respectively; $F[1, 831] = 15.08$, $p < .001$). This finding was not predicted.
- High Creators (mean = 3.56) reported significantly higher stress than Low Creators (mean = 3.46; $t[1,373] = 2.11$, $p < .035$), although the mean difference was small, and the correlation between stress and Creator was not significant.

Ruler. Three of four predictions were confirmed, with the one failed prediction actually significant in the opposite direction.

- As expected, the Ruler archetype was stronger for a Judging than for a Perceiving preference (means of 24.58 and 23.31, respectively; $F[1, 830] = 33.55$, $p < .001$).
- Contrary to prediction, subjects who preferred Thinking outscored those with a Feeling preference on the Ruler archetype (means of 24.71 vs. 23.31, respectively; $F[1, 831] = 40.59$, $p < .001$).
- As predicted, Extraverts (mean = 24.69) scored higher than Introverts (mean = 23.53; $F[1, 831] = 36.62$, $p < .001$).
- High Rulers reported more stress (mean of 3.62 vs. 3.44 for Low Rulers; $t[1,373] = 3.81$, $p < .001$). Ruler scores correlated significantly (but not strongly) with stress self-ratings ($r[1,373] = .06$, $p < .05$).

Magician. Both Magician hypotheses were confirmed, and a third unpredicted relationship came to light.

- An Intuitive preference was associated with significantly higher scores than a Sensing preference on the Magician scale (means of 25.03 and 22.55, respectively; $F[1, 831] = 44.95$, $p < .001$).
- Magician scores were significantly higher (25.37 vs. 23.82, respectively) for the Feeling than for the Thinking preference ($F[1, 831] = 37.40$, $p < .001$).
- Extraverts outscored Introverts, an unpredicted relationship (means of 25.13 and 24.40, respectively; $F[1, 831] = 8.02$, $p < .005$).

Sage. Two of the three predicted relationships of type preference to the Sage archetype were confirmed.

- Sage scores were higher for participants with a Thinking preference compared to a preference for Feeling (means 26.02 and 25.01, respectively; $F[1, 831] = 28.13$, $p < .001$).
- Sage scores were also higher for an Intuitive preference (mean = 25.64) than for a Sensing preference (mean = 24.15; $F[1, 831] = 28.60$, $p < .001$).
- However, Perceiving scores (mean = 25.28) on Sage were not significantly higher than Judging preference scores (mean = 25.62).

Jester. Three predictions were made regarding the Jester archetype, and all three were confirmed.

- High Jesters reported significantly less stress than Low Jesters (means of 3.44 and 3.58, respectively; $t[1,373] = 2.90$, $p < .004$). Stress ratings correlated negatively with Jester scores ($r[1,373] = -.10$, $p < .01$).
- Extraverts scored higher on Jester than Introverts (means of 23.58 and 21.62, respectively; $F[1, 831] = 45.79$, $p < .001$).
- Perceiving preference Jester scores (mean = 22.89) were higher than Judging preference Jester scores (mean = 21.94; $F[1, 830] = 10.64$, $p < .001$).

Gender Hypotheses. These results were analyzed using a multivariate analysis of variance (MANOVA), with gender as an independent variable and the 12 archetype scales and single stress self-ratings as dependent variables. The Ns were slightly reduced because of occasional blank scores.

Only one of the four predictions (males higher on Warrior) concerning gender and archetype scores was confirmed. Two of the four predictions (that women would score higher on Lover and lower on Seeker) were in fact statistically significant in the opposite direction to the expected difference. Also, contrary to predictions, males and females did not differ significantly on Caregiver. Mean archetype scores are presented in **Table 4**.

Despite the lack of support for effects upon these specific archetypes, the different genders did score significantly different on 11 of the 12 archetypes as well as stress. **Table 5** shows the 8 additional archetype means and the stress means.

As shown in these two tables, gender differences were significant for all but one archetype (Caregiver). Of the 11 archetype scales that differed significantly, males scored higher on eight (Innocent, Lover, Warrior, Creator, Ruler, Magician, Sage, and Jester) and women scored

Table 4. Mean Archetype Scores for Predicted Gender Differences.

Archetype	Male (*n* = 473)	Female (*n* = 876)	*F* value *df* = 1, 1,347	*p*	Prediction	Result
Caregiver	22.19	21.99	0.85	>.05	F>M	No diff
Lover	23.81	22.35	47.90	<.001	F>M	M>F
Warrior	22.30	21.27	21.89	<.001	M>F	M>F
Seeker	21.58	22.70	28.75	<.001	M>F	F>M

Table 5. Mean Archetype and Stress Scores by Gender.

Archetype	Male (*n* = 473)	Female (*n* = 876)	*F* value *df* = 1, 1,347	*p*	Result
Innocent	23.45	17.92	1672.90	<.001	M>F
Orphan	13.49	16.61	168.66	<.001	F>M
Destroyer	15.98	18.35	77.47	<.001	F>M
Creator	25.23	24.30	21.42	<.001	M>F
Ruler	24.27	23.83	6.24	<.013	M>F
Magician	25.25	23.70	51.54	<.001	M>F
Sage	25.52	24.95	12.94	<.001	M>F
Jester	23.39	22.50	14.86	<.001	M>F
Stress level	3.30	3.62	42.86	<.001	F>M

higher on three (Orphan, Destroyer, and Seeker) as well as stress. Gender clearly exerts a strong influence on PMAI scores, although the differences were largely inconsistent with predictions from Pearson's archetype theory.

Age Hypotheses. Lack of data (only three subjects younger than 20 years of age) prevented testing 2 of the 12 age-specific hypotheses derived from Pearson's theory. To test the remaining 10 hypotheses (2 of each for 5 age groupings), scores were grouped as either inside or outside the targeted age range, and archetype scores were compared for these two groupings. The results are shown in **Table 6**. (**See page 63**.)

The only result that met the customary significance criterion of $p < .05$ was for Ruler, with the target age group actually scoring lower than other ages, contrary to predictions. Warrior scores were marginally significantly higher in the predicted direction, but given the power of analysis with a large subject pool and the number of tests performed, this is probably meaningless.

DISCUSSION

The primary result of this research is a confirmation of predictable relationships between type and the archetype scales and descriptions of the PMAI. Overall, 21 of 28 (75%) predicted relationships between archetype and type were confirmed, including all 12 of the primary predications, one for each PMAI scale. Three more of the 28 relationships approached statistical significant

Table 6. Mean Archetype Scores by Age Group.

Archetype	Target Age Range	Size of Target Group	Target Age Group Mean	All Other Ages Means	*F* value *df* = 1, 1,375	*P*	Result
Seeker	15–25 yrs	*n* = 63	22.13	22.23	0.05	n/s	No diff
Lover	15–25 yrs	*n* = 63	23.22	22.82	0.66	n/s	No diff
Warrior	26–39 yrs	*n* = 442	21.89	21.48	3.35	.067	**Higher**
Caregiver	26–39 yrs	*n* = 442	21.94	22.10	0.56	n/s	No diff
Destroyer	40–54 yrs	*n* = 622	17.41	17.52	0.18	n/s	No diff
Creator	40–54 yrs	*n* = 622	24.42	24.69	1.93	n/s	No diff
Ruler	55–65 yrs	*n* = 229	23.48	24.03	6.05	.014	**Lower**
Magician	55–65 yrs	*n* = 229	24.36	24.19	0.36	n/s	No diff
Sage	66+ yrs	*n* = 21	25.90	25.11	1.66	n/s	No diff
Jester	66+ yrs	*n* = 21	23.14	22.83	0.12	n/s	No diff

Note: The boldfaced words highlight the only significant (or nearly significant) results in the table.

($p < .10$). In addition, seven of nine predications regarding self-reported stress levels and archetype scores were confirmed.

These results accomplished the main goal of this research. The results of the PMAI are meaningfully related to type preferences and stress, provide evidence for the convergent validity of the instrument, and augment the validity evidence summarized in Pearson and Marr (2003).

Unconfirmed Hypotheses and Unexpected Results. The few unconfirmed hypotheses and the occasional unpredicted relationships that emerged from the data analysis may help us better understand and refine Pearson and Marr's (2002) archetype descriptions. For example, Orphan scores were higher for Introverts than for Extraverts. Although unpredicted, this finding is not surprising, as the label "Orphan" implies social isolation. Also, the careful approach to life of the Orphan archetype described by Pearson and Marr is consistent with the research of Harker, Reynierse, and Komisin (1998), in which friends and relations described Introverts as "hesitant" and "cautious."

Likewise, the unpredicted increased preference for Extraversion over Introversion for Warrior is more apparent when considered from a type perspective than from Pearson and Marr's (2002) archetypal description. Myers et al. (1998) described the Extraverted attitude as incorporating "a desire to act on the environment" and "an action-oriented . . . way of meeting life" (p. 26). Although Pearson and Marr place more emphasis on a Warrior's discipline and determination, their description is sprinkled with action-oriented phrases (e.g., Warriors will "face the most fierce antagonist" and "enjoy spearheading a crusade") (p. 15).

The lack of a significant relationship between Warrior scores and stress may also be related to activity level. The research on learned helplessness (e.g., Peterson, Maier, & Seligman, 1993) suggests that inescapable stress leads to a lethargic, low activity state. Chronic stress might thus lead to lower Warrior scores, working in opposition to the original hypothesis that High Warriors would experience higher stress, for a net cancellation. This, as well as the relationship between Warrior scores and J–P type preferences, may also come to light with further study.

Surprisingly, Caregiver scores were not higher for Extraverts than for Introverts, although the direction of the difference was in the predicted direction. Possibly,

care can be directed both inwardly and outwardly; certainly Western culture supports the values of self-care.

The Lover archetype was not associated with lower stress. Perhaps a Lover may be a "romantic and bliss seeker" (Pearson & Marr, 2002, p. 21) but find the search frustrating or stressful. The level of satisfaction in a love relationship might be a better predictor of stress than a Lover preference alone, but such data were not collected in this study.

One of the most interesting unexpected results involved the similarities and differences between Destroyer and Creator. Although the relationship was predicted only for Creator, Destroyer also showed a preference for Intuition. The possibilities envisioned using the Intuitive function may thus be both positive and destructive. Change, whether positive or negative, has long been shown to be stressful (e.g., Holmes & Rahe, 1967), which may explain why both archetypes were associated with higher stress. Destroyer and Creator differed on the Thinking–Feeling preference, but not exactly as hypothesized. The prediction of Destroyers exhibiting a preference for Feeling was confirmed, but contrary to prediction, High Creators did not significantly prefer Thinking. Given that individuals who prefer Thinking are described by those who know them as "critical," "opinionated," and "perfectionist" (Harker et al., 1998), this lack of confirmation rebuts Pearson and Marr's (2002) claim that Creators look for flaws to criticize. Perhaps the most interesting contrast between Destroyer and Creator is the Introverted, female character of the former and the Extraverted, male associations with the latter. Future research will have to tackle this thorny issue.

Contrary to prediction, Rulers preferred Thinking, not Feeling. This finding is consistent with type research (e.g., Macdaid, McCaulley, & Kainz, 2005), which has repeatedly documented the preference of business executives for Thinking over Feeling. It may be that authority and leadership come in two flavors, a Thinking orientation that employs logic and values fairness, and a Feeling preference that seeks harmony and empowerment. Future research might include a two-fold assessment, examining both type and archetype, to look for predictable differences in Rulers who prefer Feeling or Thinking.

Extraverts scored higher than Introverts on Magician, another unpredicted finding. This may be understood through some additional reading of Pearson and Marr (2002), who nod in the direction of Extraversion with their comment that a Magician "knows how to unite people" (p. 29).

The prediction that Sage would favor P over J also failed; in fact, the results trended in the opposite direction. Although Pearson and Marr (2002) claimed that Sages are hesitant to act before collecting enough information, they also noted a "tendency to be dogmatic and opinionated" (p. 31). These two conflicting tendencies towards openness and closure may make the relationship between Sage and the J–P domain a more idiosyncratic one. Sage scores were also higher for those preferring Intuition over Sensing, an unexpected finding. Sagacity may thus embrace an ability to see implications and patterns beyond the immediate facts.

Gender and Archetypes. Unlike the positive results for most of the predicted relationships between type and archetype preferences, only one of the gender hypotheses—that Warrior archetypes scores would be higher for men than for women—was confirmed. Male and female Caregiver scores did not differ significantly. Men scored significantly higher than women on Lover and significantly lower on Seeker—both results opposite to predications.

One plausible explanation is that the unusual demographics of the males and females in this self-selected sample obscured gender role differences that would have appeared in a more random, representative selection of the population as a whole. The source of the sample, CAPT's client base, includes many highly educated professionals, many of whom own their own businesses. The PMAI sample thus skewed towards a very high educational level, with 84% holding at least a bachelor's degree and 52% holding graduate (master's, Ph.D., JD, MD, DDS) degrees. The percentages for women were comparable to the male results, in contrast to the U.S. population, where women trail men in receiving bachelor's and postgraduate degrees. The 2000 census, for example, indicated that only about 0.6% of women held doctorate degrees (Wikipedia, 2007). In the present sample, only a tiny percentage of women (1.7%) reported their occupation as "homemaker," actually lower than the percentage of men (3.1%) in the sample, and far lower than the U.S. population estimates of as high as 38% (Larson, 1997).

As the women in this study's subject pool clearly did not conform to population norms for education and occupation, they may also fail to exhibit the more usual gender-driven archetypal roles. While attempting to close the gender gap, career-focused women may

actively seek new roles and destroy traditional expectations. This explanation is speculative, but consistent with the observed higher scores for women for the Seeker and Destroyer archetypes and lower results for Caregiver and Lover. Women's lower scores on Ruler and Innocent are also consistent with the idea that women do not feel as empowered as men, yet are aware (i.e., no longer Innocent) of the power disparity. This conceptualization of the changing archetypal roles of women in society might also explain the finding of higher stress levels in women.

Changing roles for women would presumably be reflected in age-related differences in scores for traditional roles and archetypes, with older women more likely to fit more traditional archetypes. Larson (1997), for example, reported that younger women are less likely than older women to identify themselves as homemakers. The present data, however, do not show higher Caregiver or lower Seeker scores for older women.

Gender clearly exerts a strong effect on PMAI scores. Potential interactions of gender with age, culture, and life situation should be explored in future research with the PMAI. Until then, the present data provide little support for the instrument's predicted gender differences.

Age and Archetypes. None of the predicted relationships between age and archetypes was confirmed in this research, providing little evidence to support Pearson's proposal that different opposing archetypes characterize different developmental stages. Instead, the results are consistent with Pearson's caveat that individual differences trump any age-related trends, and, indeed, "archetypes . . . can emerge at any time of life" (Pearson, 1991, p. 236).

CONCLUSION

Although type preference and PMAI scores are related in predictable ways, they are not measuring the same things. Each type preference included a wide range of archetype scores, and every dominant archetype included both preference poles within each of the four type pairs. Just as some type theorists (e.g., Quenk, 2002) have focused on situations in which type and behavior appear incongruous, so might future research focus on individuals whose type-archetype pairings differ from the normal pattern (e.g., Rulers with a Feeling preference), or predict different outcomes for different type-archetype combinations. For example, consider the different expectations of High Seekers with different type preferences:

An Extraverted Seeker will direct his or her search in an outward direction, possibly seeking new relationships and new destinations. An Introverted Seeker will look inward, seeking self-understanding and greater learning.

1. A Seeker who prefers Intuition will pursue the many opportunities or ideas he or she can conceive. The relatively rare Seeker with a Sensing preference might be more focused on the pursuit of experience and sensory input.
2. A Seeker with a Thinking preference will pursue truth, whereas a Seeker who prefers Feeling will be more interested in harmony or bliss.
3. Seekers who prefer Perception will be more likely to find the journey its own end, whereas Seekers with a preference for Judgment will want to get to the destination soon, or find frustration in conflicting desires to both search and find closure.
4. Compared to the volumes of research on psychological type, the empirical study of archetypes is in its infancy. The Pearson-Marr Archetype Indicator will benefit from further research establishing its predictive validity. Much remains to be discovered as more data are collected and analyzed, including exploration of the use of Carl Jung's concepts of type and archetype in tandem.

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