



FEBI TECHNICAL MANUAL

Background, Validation and Research

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TABLE OF CONTENTS

Overview	3
FEBI Report Scoring	4
FEBI Factor Analysis and Reliability	7
FEBI Correlation Studies	8
FEBI Pattern Movement Study	13
References and Additional Resources	14

FEBI OVERVIEW

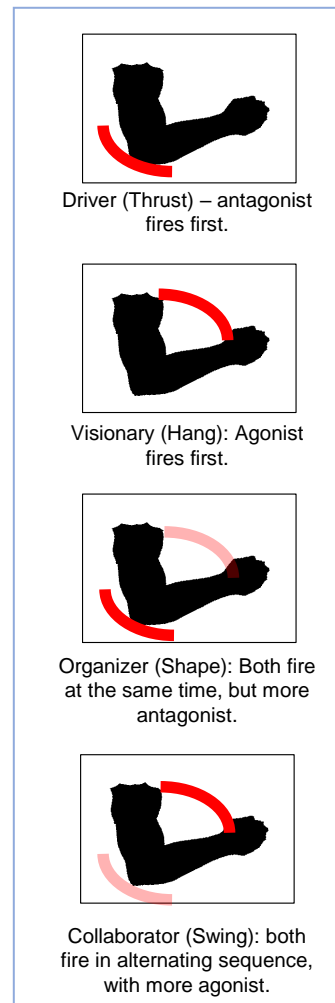
FEBI® is the only validated personality assessment and coaching tool that measures four fundamental energy patterns linking mind, body and behaviors. These patterns connect four ways the nervous system functions with four factors of personality and four essential modes of leadership. No other assessment is as descriptive and prescriptive in helping people reclaim the energy they need.

Origins of the Patterns and FEBI

- 4 patterns of movement were first characterized by Dr. Josephine Rathbone (Rathbone, 1936). The patterns relate to the order in which nerves stimulate opposing muscles groups regulating movement; specifically, whether resistive muscles (i.e., antagonist) were stimulated first (Driver), last (Visionary), simultaneously (Organizer) or alternately (Collaborator) with the primary muscles producing the movement (i.e., agonist).
- The 4 patterns of neuromuscular firing were validated by electrophysiological recordings by Hunt and Weber (1964) and connected back to Rathbone's manual test for detecting one's residual (i.e., Home) pattern. (Fitt, 1975).
- The 4 patterns were called Coordination Patterns™* and linked to temperament by choreographer and movement researcher, Betsy Wetzig. She named them according to their movement essence: Thrust, Shape, Swing and Hang (Whitelaw and Wetzig, 2008).
- FEBI® was developed to measure one's order and preferences among these 4 patterns.
- FEBI validation and research shows these patterns as four largely orthogonal factors of personality, interconnecting physical and psychological states (Attan et al., 2017).

* Coordination Patterns is a trademark of Betsy Wetzig;

FEBI is a registered trademark of the Institute for Zen Leadership



Contents of the FEBI Report:

- Overall Energy Profile, including the order and strength of each energy pattern on a normed scale and identification of likely Home pattern.
- Energy Style, including primary and backup styles which contribute to agility.
- Relative use of the energy patterns in everyday Work Behaviors.
- Potential Development Area(s), and how those might show up in life, work, and leadership.
- A comprehensive set of development recommendations to cultivate a desired pattern.

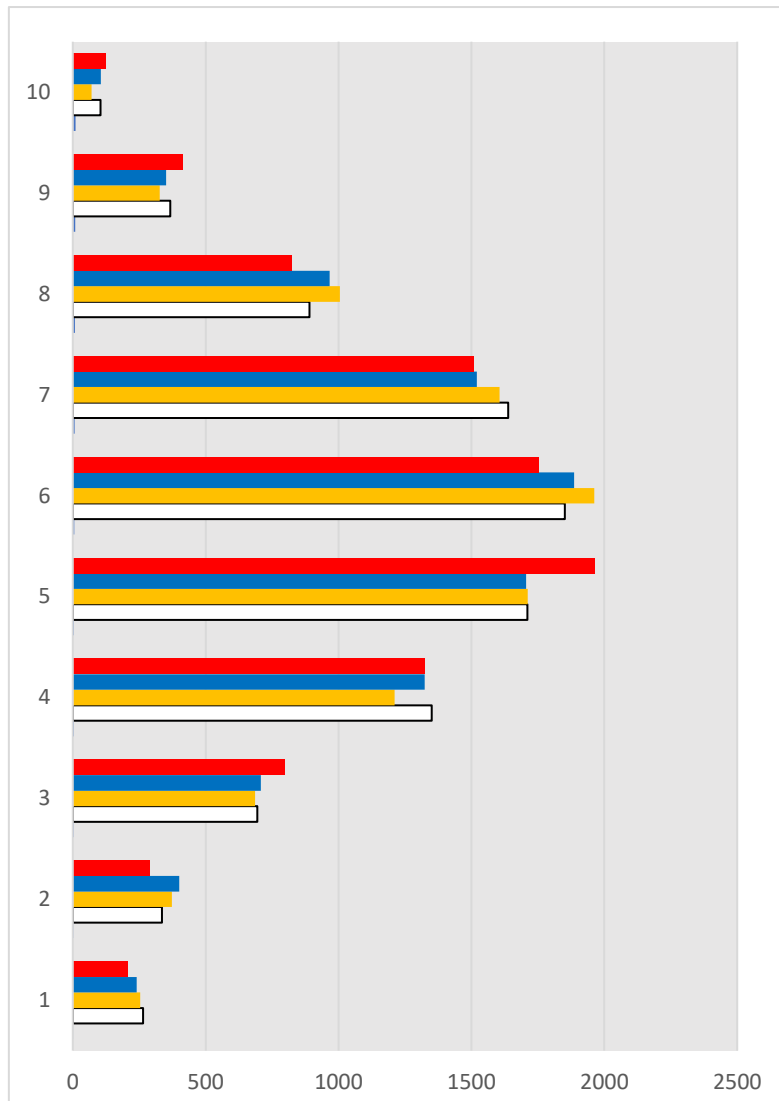
Composite FEBI group reports, valuable in diagnosing patterns in a team or culture, also show what behaviors a team or group will migrate toward, what they may overlook, and ways they can be more balanced or focused in their approach.

FEBI REPORT SCORING

Overall Energy Profile: The Overall Energy Profile (page 5) shows each pattern on a standard Sten scale, normed using a large (n>9000) database of adults from a wide variety of professions and countries, with men and women roughly equally represented. Scores are categorized as Very Low to Very High and map to approximate percentile distributions as follows:

Category	Sten Score	Percentile
Very Low	1, 2	5-7 percentile
Low	3, 4	5-30 percentile
Moderate	5, 6	31-70 percentile
High	7, 8	71-94 percentile
Very High	9, 10	95-100 percentile

The distribution of Sten scores for each pattern is below, along with exact percentages in each category.



	Driver	Organizer	Collaborator	Visionary
Very Low	6.53%	6.81%	6.95%	5.41%
Low	22.20%	20.60%	22.07%	23.05%
Moderate	38.69%	39.90%	39.01%	40.38%
High	27.47%	28.36%	27.01%	25.33%
Very High	5.12%	4.32%	4.95%	5.83%

Home Pattern and statistical significance: A statistically significant difference between patterns is 1 Sten point, which corresponds to a half a standard deviation. Pattern order of statistically significant preferences is generally stable over time, though absolute values can vary. If the strongest two patterns have the same Sten

score, no Home pattern is identified in the FEBI report. For differences of 1 point or more, a likely Home pattern is identified, however, when the top two patterns differ by only one point, the second pattern may be the Home pattern, and is a good area to probe in coaching. One's Home pattern generally modulates expression of the other three patterns, resulting in combinations called "style."

Styles: Most people will rate their strongest two patterns in the moderate range or higher and will combine their strongest two patterns into a primary style they use most of the time. Primary and Backup Styles identify any style combinations of people's home pattern with their 2nd, 3rd or 4th patterns that they rated as moderate or higher. If people rate their use of a pattern as low or very low, those patterns are not listed as part of a readily accessible style. For people whose 2nd pattern (or even strongest pattern) is in the low or very low range, no styles will be listed, however their styles in practice can be discerned from dominant patterns in the top half of their Work Behaviors Page.

Work Behaviors: This is an independent part of the report, not factored into the scoring on overall profile. It reports ipsative data where people had to make forced choices among behaviors they do most often. This table arranges the Work Behaviors in order of high scores (5's) to low scores (1's), color-coded by the pattern that is the best fit to that behavior, which may or may not be the pattern used by a given person.

Development Areas: The weakest of the four patterns and any pattern rated in the low or very low range will show up as a potential development area. If more than one pattern has the same lowest Sten score, the pattern with the lowest raw score is selected as a possible development area. Possible symptoms of underusing these weaker patterns are listed and, if people recognize those symptoms and want to address them, development suggestions follow, which include work behaviors, as well as physical and sensory ways to cultivate the desired pattern.

FEBI FACTOR ANALYSIS AND RELIABILITY

The FEBI has been fully validated in factor analysis on a statistically significant sample (n=4328) of adult professionals from around the world, with most from the U.S. and Europe. The cumulative variance for the four factors is high (nearly 30%) and the internal reliability (α) for each factor is extremely high (greater than .7 is considered good), as shown in Table 1.

Table 1. Factor Analysis and Internal Reliability

Component	% of Variance	Cumulative %	Internal reliability (α)
1 (Collaborator)	8.1	8.1	.89
2 (Organizer)	7.2	15.2	.89
3 (Driver)	7.0	22.2	.90
4 (Visionary)	7.0	29.2	.88

The four patterns of the FEBI emerge as four clear factors in factor analysis, with moderate cross-correlation between Collaborator and Visionary, low correlation between Driver and Organizer and no correlation between Driver/Organizer and Collaborator/Visionary, as shown in Table 2.

Table 2. Correlations between Components

	Driver	Organizer	Collaborator	Visionary
Driver	1	.34	.19	.12
Organizer	.34	1	.05	.01
Collaborator	.19	.01	1	.54
Visionary	.12	.05	.54	1

FEBI CORRELATION STUDIES

FEBI Correlations with NEO

A study was done (n=205) comparing FEBI with the NEO, which is considered a “gold standard” clinical instrument based on the 5-factor personality model. Our factor analysis of NEO showed four factors (E-Extraversion, O-Openness, A-Agreeableness, and C-Conscientiousness) more clearly than the fifth (N-Negative Emotions). Factor analysis of FEBI showed that its four factors correlated with the four clearest factors of the NEO, and even more clearly at the subscale level, as summarized in Table 3.

Table 3. FEBI Correlations to NEO (5-Factor Model) (n=205)

	Driver	Organizer	Collaborator	Visionary
NEO Factor	(not) Agreeable -.52	Conscientious ness .67	Extraversion .72	Openness .57
NEO subscales with moderate to high correlation p>.01	<ul style="list-style-type: none">• Activity• Achievement Striving• Assertiveness• Angry• Not altruistic• Not compliant	<ul style="list-style-type: none">• Competence• Order• Dutifulness• Self-Discipline• Deliberation	<ul style="list-style-type: none">• Excitement Seeking• Warmth• Gregarious• Positive Emotions• Trust	<ul style="list-style-type: none">• Fantasy• Aesthetics• Openness to Ideas• Positive Emotions

This NEO correlation study grounded the descriptors of FEBI patterns at five levels (very low, low, moderate, high, very high) with a well-established standard.

FEBI Correlations with Multi-rater Feedback

In a study comparing FEBI results with data from multi-rater feedback (i.e., 360 data, n=105), connections were found between self-rated strong and weak patterns on FEBI and strengths and development needs seen by others, as summarized in Table 4.

Table 4. Comparison of FEBI results to Multi-Rater Feedback Data

360 to FEBI Comparison Measure	% of cases	Conclusions
Strengths seen by others related to strongest (i.e., Home) pattern:	42 %	In nearly half the cases, Home patterns are evident in the strengths seen by others
Strengths seen by others related to primary style:	69 %	Primary style is better predictor of strengths than is Home pattern alone
Development Needs seen by others related to underuse of 4th (weakest) pattern:	77 %	FEBI-identified risk area relates to the development needs seen by others in about 3 out of 4 cases
Development Needs seen by others related to overuse of 1st (Home) pattern	31 %	Weakest pattern is better predictor of development needs seen by others than is Home pattern
Development Needs seen by others related to 3rd and/or 4th pattern	96 %	Development needs seen by others relate to underuse of the bottom two patterns in almost all cases

In this dataset, FEBI and multi-rater feedback comparisons showed performance weaknesses as seen by others related to underuse of people's fourth pattern most of the time (77%) and people's third or fourth pattern almost always. Frequent comments from multi-rater feedback data as related to the FEBI patterns are summarized in Table 5.

Table 5. Typical Multi-rater Feedback Comments Related to the FEBI Patterns

Lack of...	ambition, confidence, focus, ability to challenge	discipline, orderliness, attention to detail, follow through	fun, joy, ability to influence, inspire, work with others	long term, big picture thinking, can see possibilities, let go
Relates to underuse of	Driver	Organizer	Collaborator	Visionary

FEBI Connections to Other instruments

FEBI measures four the dominant factors of personality that, to greater or lesser extents, other instruments also measure, so comparisons can be readily made. But unlike other instruments, FEBI goes beyond a cognitive-behavioral view of personality to also include the body, where shifts can happen.

Table 6 compares FEBI with three popular instruments: the Hogan Suite, MBTI and DISC.

Table 6. Similarities and Differences Between FEBI and Other Instruments

	FEBI	Hogan Suite	MBTI	DISC
Measures	4 orthogonal factors	Based on 5-factor model	4 inter-related scales; factored at subscale level in MBTI Type 2	High and low on 2 orthogonal factors
View of personality	Energetic patterns of the nervous system; mind, body, behaviors connected. Personality characterized as preferences among 4 patterns with access to all at will.	Cognitive-behavioral; personality characterized as having a “bright side,” including certain motives and values, and a “dark side” or risk areas.	Cognitive-behavioral; personality characterized as being of this or that type, loosely based on Jung’s work. As people mature, they can act out of their shadow (i.e., opposite) side.	Cognitive-behavioral; people have a natural profile and an adaptive profile where they may go under pressure.
Connections to FEBI Patterns	Driver	<i>Personality Index:</i> Ambition <i>Risk areas:</i> Volatile, Mischievous, Arrogant	E vs I: Task Extroversion -> Driver	D

	FEBI	Hogan Suite	MBTI	DISC
	Organizer	<i>Personality Index:</i> Prudence <i>Risk areas:</i> Overly Cautious, Perfectionist, Pleaser, Passive Resistant	J vs P: Judging -> Organizer	S and C have traits in common with Organizer, but do not capture its stepwise thinking
	Collaborator	<i>Personality Index:</i> Sociability, Interpersonal Sensitivity <i>Risk areas:</i> Melodramatic, Mischievous, Volatile	E vs I: Socially Extroverted -> Collaborator	I is closest to Collaborator, with some Visionary traits included
	Visionary	<i>Personality Index:</i> Inquisitive, Learning Approach <i>Risk areas:</i> Eccentric, Aloof, Passive Resistant	S vs N and J vs P NP -> Visionary	No good measure of Visionary
Builds	Self-awareness, self-regulation, empathy, agility	Self-awareness	Self-awareness	Self-awareness
Development Suggestions	practices that include physical, sensory, mindset and behavioral elements	Mindset and behavioral suggestions for risk areas	Not a focus, type is regarded as fairly fixed	Behavioral suggestions

FEBI Connections to Jung's Elements

The FEBI energy patterns also equate to what Swiss psychiatrist, Carl Jung (Jung, 1980) explored as alchemical elements – fire (Driver), earth (Organizer), water (Collaborator), air (Visionary) – shaping individuals and their transformations toward greater maturity (analogous to gold, hence the term, “alchemy”). Lebaron and Alexander (2020) take this work further in showing how these same energies can be used in organizational transformation, not only as a diagnostic, but also in imagining the future, and working through the conflicts of transformation. Characterizing this alchemy is that each element has gifts (if used appropriately) and pitfalls (if overdone) and that the pitfalls of one element are mitigated by the gifts of another. These bodies of work mirror how the FEBI patterns are defined and used in self-awareness, self-regulation, collective awareness and shifting organizations.

FEBI PATTERN MOVEMENT STUDY

A movement study (Attan at al., 2017) was done involving undergraduates (n=57) at the University of Maryland to test the relationship between physical movement and FEBI patterns as expressed by cognition, emotion and behavior. In a controlled setting, participants were asked to replicate a series of physical movement sequences designed to put them into each FEBI pattern, and then write down 5 words to describe their state. After all four movement sequences, they were also asked to rank their comfort level among the sequences and complete the FEBI assessment.

Results showed that virtually all (96%) of the participants reported a change in state based on movement alone and, on average, four of the five words they used to describe their states agreed with the FEBI model. Most often, when they used an inappropriate pattern descriptor, it was a negative comment corresponding to a pattern they felt less comfortable in. Moreover, peoples' comfort level in the movement sequences generally matched their pattern preferences on FEBI when those preferences were clear. A summary of the most frequent responses in the study are given in Table 7.

Table 7. Most Common Descriptors for Each Movement Sequence

Movement Sequence	Driver	Organizer	Collaborator	Visionary
Words used to describe this sequence	Aggressive Intense Angry Focused Power/ Powerful	Calm/Calming Relax/Relaxing Dance/Dancing Balanced Peaceful Order/Orderly	Loose Relaxed/Relaxing Silly/Fun/Funny Free Dance/Dancing Energetic/ Energizing	Relaxed/Relaxing Calm Free Meditate/ Meditation Flow/Flowing Unplanned/ Unforced

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