

## Dichotomy Table (Tencer-Minaev)

### Classes of IM Dichotomies

	Positions Democratic Information	Does Not Position Democratic Information
Positions Aristocratic Information	Vector Dichotomy 1. Valid / Null 2. Static / Dynamic 3. Democratic / Aristocratic 4. Asking / Declaring	Aristocratic Dichotomy 1. 1stInternal / 1stExternal 2. 1stDelta / 1stBeta 3. 2ndExternal / 2ndInternal 4. 2ndBeta / 2ndDelta
Does Not Position Aristocratic Information	Democratic Dichotomy 1. 1stAbstract / 1stInvolved 2. 1stAlpha / 1stGamma 3. 2ndAbstract / 2ndInvolved 4. 2ndAlpha / 2ndGamma	Converse Dichotomy 1. Irrational / Rational 2. Extroverted / Introverted 3. Process / Result 4. Positivist / Negativist

### Sets

Vector Set

$$V = \{V_1, V_2, V_3, V_4\}$$

Aristocratic Set

$$A = \{A_1, A_2, A_3, A_4\}$$

Democratic Set

$$D = \{D_1, D_2, D_3, D_4\}$$

Converse Set

$$C = \{C_1, C_2, C_3, C_4\}$$

General Set

$$G = \{V_1, V_2, C_1, C_2\}$$

Supralocal Set

$$U = \{V_3, V_4, C_3, C_4\}$$

Accepting Set

$$I = \{A_1, A_2, D_1, D_2\}$$

Producing Set

$$R = \{A_3, A_4, D_3, D_4\}$$

Faculty Set

$$F = \{A_1, A_3, D_1, D_3\}$$

Axis Set ( $Q$  = Quadra)

$$Q = \{A_2, A_4, D_2, D_4\}$$

Central Set

$$Z = \{V_1, V_3, C_1, C_3\}$$

Square / Dihedral Set

$$S = \{V_2, V_4, C_2, C_4\}$$

Orbital / Ordinal Set -  $(V \cup C) \in \mathcal{O}$

$$\mathcal{O} = \{V_1, V_2, V_3, V_4, C_1, C_2, C_3, C_4\}$$

Non-Orbital / Cardinal / Wall Set -  $(A \cup D) \in W_{14}$

$$W_{14} = \{A_1, A_2, A_3, A_4, D_1, D_2, D_3, D_4\}$$

Level One Set

$$X_1 = \{V_1, A_1, D_1, C_1\}$$

## Level Two Set

$$X_2 = \{V_2, A_2, D_2, C_2\}$$

## Level Three Set

$$X_3 = \{V_3, A_3, D_3, C_3\}$$

## Level Four Set

$$X_4 = \{V_4, A_4, D_4, C_4\}$$

## Universal Set

$$\mathbb{U} = \{V_i, A_i, D_i, C_i \mid i = 1, 2, 3, 4\}$$

## Mathematical Correspondences

### Alphabetic Correspondences

Let:

$$\begin{aligned}\mathcal{A} &:= \mathbb{U} \\ \mathcal{A} &= V \sqcup A \sqcup D \sqcup C\end{aligned}$$

We introduce a binary operation:

$$\star : \mathcal{A} \times \mathcal{A} \longrightarrow \mathcal{A}.$$

Complement map:

$$\kappa : \mathcal{A} \longrightarrow \mathcal{A}, \quad \kappa^2 = \text{identity},$$

such that:

$$\kappa(V_i) = C_i, \quad \kappa(C_i) = V_i, \quad \kappa(A_i) = D_i, \quad \kappa(D_i) = A_i.$$

This is an involution:

$$\kappa(\kappa(x)) = x$$

and it respects indices.

## Axioms Written as an Operation

$$x \star y = \begin{cases} V_i & \text{if } x = y, \\ x & \text{if } y = V_i, \\ C_i & \text{if } x = \kappa(y), \\ \kappa(x) & \text{if } y = C_i. \end{cases}$$

## Numeric Correspondences

**Let:**

$$\begin{aligned}\mathcal{N} &:= \mathbb{U} \\ \mathcal{N} &= X_1 \sqcup X_2 \sqcup X_3 \sqcup X_4\end{aligned}$$

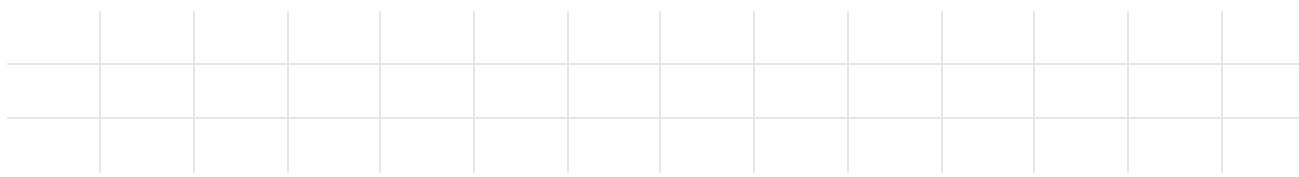
## The binary operation:

$$\star : \mathcal{N} \times \mathcal{N} \longrightarrow \mathcal{N}.$$

## Axioms Written as an Operation

$$x \star y = \begin{cases} X_1 & \text{if } x = y, \\ X_2 & \text{if } x = X_1 \text{ and } y = X_4, \\ X_3 & \text{if } x = X_2 \text{ and } y = X_4, \\ X_4 & \text{if } x = X_2 \text{ and } y = X_3. \end{cases}$$

## Cayley Table for $\mathcal{D}_{14}$



## IM Octads Index

### Disclaimer

Since  $V_1$  is not a dichotomy (proper), the sets that are derived from it are not octadic, therefore containing no real octads of types. While a dichotomy (proper) entails equal partitioning, this set is tautologically defined by the criteria for TIM validity and thus does not constitute an even distribution of octadic sets.

### Notation

A dichotomy is a partition:

$$\mathfrak{d} = \{\mathfrak{d}_0, \mathfrak{d}_1\}, \quad \mathfrak{d}_0 \sqcup \mathfrak{d}_1 = T$$

with the dichotomy function:

$$\mathfrak{d} : T \rightarrow \mathbb{Z}_2$$

by

$$\mathfrak{d}(t) := \begin{cases} 0 & \text{if } t \in \mathfrak{d}_0, \\ 1 & \text{if } t \in \mathfrak{d}_1. \end{cases}$$

We fix the sociotype ILE as the reference element and identify it with the zero vector. Accordingly, for every dichotomy  $\mathfrak{d}$ , the assignment of values for 0 and 1 is chosen so that  $\mathfrak{d}(\text{ILE}) = 0$ . All trait values and vector representations are therefore understood relative to this basepoint. Under this convention, every type  $t \in T$  is represented by a binary vector encoding its deviation from the ILE across the fixed dichotomy system.

### Orbital / Ordinal Octads ( $\mathcal{O}$ )

 **Octad v**

Vector Octads ( $V$ )

### Valid / Null ( $V_1$ )

$$T = \{\text{ILE, SEI, ESE, LII, EIE, LSI, SLE, IEI, SEE, ILI, LIE, ESI, LSE, EII, IEE, SLI}\}$$

$$\mathcal{E} = \{\text{?Ne}^+, \text{!Si}^-, \text{!Fe}^+, \text{?Ti}^-, \text{?Fe}^-, \text{!Ti}^+, \text{!Se}^-, \text{?Ni}^+, \text{?Se}^+, \text{!Ni}^-, \text{!Te}^+, \text{?Fi}^-, \text{?Te}^-, \text{!Fi}^+, \text{!N}\}$$

### Static / Dynamic ( $V_2$ )

$$V_{2,0}^T = \{\text{ILE, LII, LSI, SLE, SEE, ESI, EII, IEE}\}$$

$$V_{2,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{?Ti}^-, \text{!Ti}^+, \text{!Se}^-, \text{?Se}^+, \text{?Fi}^-, \text{!Fi}^+, \text{!Ne}^-\}$$

$$V_{2,1}^T = \{\text{SEI, ESE, EIE, IEI, ILI, LIE, LSE, SLI}\}$$

$$V_{2,1}^{\mathcal{E}} = \{\text{!Si}^-, \text{!Fe}^+, \text{?Fe}^-, \text{?Ni}^+, \text{!Ni}^-, \text{!Te}^-, \text{?Te}^+, \text{?Si}^+\}$$

### Democratic / Aristocratic ( $V_3$ )

$$V_{3,0}^T = \{\text{ILE, SEI, ESE, LII, SEE, ILI, LIE, ESI}\}$$

$$V_{3,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{!Si}^-, \text{!Fe}^+, \text{?Ti}^-, \text{?Se}^+, \text{!Ni}^-, \text{!Te}^+, \text{?Fi}^-\}$$

$$V_{3,1}^T = \{\text{EIE, LSI, SLE, IEI, LSE, EII, IEE, SLI}\}$$

$$V_{3,1}^{\mathcal{E}} = \{\text{?Fe}^-, \text{!Ti}^+, \text{!Se}^-, \text{?Ni}^+, \text{?Te}^-, \text{!Fi}^+, \text{!Ne}^-, \text{?Si}^+\}$$

### Asking / Declaring ( $V_4$ )

$$V_{4,0}^T = \{\text{ILE, LII, EIE, IEI, SEE, ESI, LSE, SLI}\}$$

$$V_{4,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{?Ti}^-, \text{?Fe}^-, \text{?Ni}^+, \text{?Se}^+, \text{?Fi}^-, \text{?Te}^-, \text{?Si}^+\}$$

$$V_{4,1}^T = \{\text{SEI, ESE, LSI, SLE, ILI, LIE, EII, IEE}\}$$

$$V_{4,1}^{\mathcal{E}} = \{\text{!Si}^-, \text{!Fe}^+, \text{!Ti}^+, \text{!Se}^-, \text{!Ni}^-, \text{!Te}^+, \text{!Fi}^+, \text{!Ne}^-\}$$

### Octad c

### Converse Octads ( $C$ )

#### Irrational / Rational ( $C_1$ )

$$C_{1,0}^T = \{\text{ILE, SEI, SLE, IEI, SEE, ILI, IEE, SLI}\}$$

$$C_{1,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{!Si}^-, \text{!Se}^-, \text{?Ni}^+, \text{?Se}^+, \text{!Ni}^-, \text{!Ne}^-, \text{?Si}^+\}$$

$$C_{1,1}^T = \{\text{ESE, LII, EIE, LSI, LIE, ESI, LSE, EII}\}$$

$$C_{1,1}^{\mathcal{E}} = \{\text{!Fe}^+, \text{?Ti}^-, \text{?Fe}^-, \text{!Ti}^+, \text{!Te}^+, \text{?Fi}^-, \text{?Te}^-, \text{!Fi}^+\}$$

Extroversion / Introversion ( $C_2$ )

$$C_{2,0}^T = \{\text{ILE, ESE, EIE, SLE, SEE, LIE, LSE, IEE}\}$$

$$C_{2,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{!Fe}^+, \text{?Fe}^-, \text{!Se}^-, \text{?Se}^+, \text{!Te}^+, \text{?Te}^-, \text{!Ne}^-\}$$

$$C_{2,1}^T = \{\text{SEI, LII, LSI, IEI, ILI, ESI, EII, SLI}\}$$

$$C_{2,1}^{\mathcal{E}} = \{\text{!Si}^-, \text{?Ti}^-, \text{!Ti}^+, \text{?Ni}^+, \text{!Ni}^-, \text{?Fi}^-, \text{!Fi}^+, \text{?Si}^+\}$$

Process / Result ( $C_3$ )

$$C_{3,0}^T = \{\text{ILE, SEI, EIE, LSI, SEE, ILI, LSE, EII}\}$$

$$C_{3,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{!Si}^-, \text{?Fe}^-, \text{!Ti}^+, \text{?Se}^+, \text{!Ni}^-, \text{?Te}^-, \text{!Fi}^+\}$$

$$C_{3,1}^T = \{\text{ESE, LII, SLE, IEI, LIE, ESI, IEE, SLI}\}$$

$$C_{3,1}^{\mathcal{E}} = \{\text{!Fe}^+, \text{?Ti}^-, \text{!Se}^-, \text{?Ni}^+, \text{!Te}^+, \text{?Fi}^-, \text{!Ne}^-, \text{?Si}^+\}$$

Positivist / Negativist ( $C_4$ )

$$C_{4,0}^T = \{\text{ILE, ESE, LSI, IEI, SEE, LIE, EII, SLI}\}$$

$$C_{4,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{!Fe}^+, \text{!Ti}^+, \text{?Ni}^+, \text{?Se}^+, \text{!Te}^+, \text{!Fi}^+, \text{?Si}^+\}$$

$$V_{4,1}^T = \{\text{SEI, LII, EIE, SLE, ILI, ESI, LSE, IEE}\}$$

$$V_{4,1}^{\mathcal{E}} = \{\text{!Si}^-, \text{?Ti}^-, \text{?Fe}^-, \text{!Se}^-, \text{!Ni}^-, \text{?Fi}^-, \text{?Te}^-, \text{!Ne}^-\}$$

**Wall / Cardinal / Non-Orbital Octads ( $W_{14}$ )**

 **Octad a**

Aristocratic Octads ( $A$ )

1stInternal / 1stExternal ( $A_1$ )

$$A_{1,0}^T = \{\text{ILE, ESE, EIE, IEI, ILI, ESI, EII, IEE}\}$$

$$A_{1,0}^{\mathcal{E}} = \{\text{?Ne}^+, \text{!Fe}^+, \text{?Fe}^+, \text{?Ni}^+, \text{!Ni}^-, \text{?Fi}^-, \text{!Fi}^+, \text{!Ne}^-\}$$

$$A_{1,1}^T = \{\text{SEI, ESE, EIE, SLE, SEE, ESI, EII, SLI}\}$$

$$A_{1,1}^E = \{\text{!Si}^-, \text{?Ti}^-, \text{!Ti}^+, \text{!Se}^-, \text{?Se}^+, \text{!Te}^+, \text{?Te}^-, \text{?Si}^+\}$$

1stDelta / 1stBeta ( $A_2$ )

$$A_{2,0}^T = \{\text{ILE, SEI, LIE, ESI, LSE, EII, IEE, SLI}\}$$

$$A_{2,0}^E = \{\text{?Ne}^+, \text{!Si}^-, \text{!Te}^+, \text{?Fi}^-, \text{?Te}^-, \text{!Fi}^+, \text{!Ne}^-, \text{?Si}^+\}$$

$$A_{2,1}^T = \{\text{ESE, LII, EIE, LSI, SLE, IEI, SEE, ILI}\}$$

$$A_{2,1}^E = \{\text{!Fe}^+, \text{?Ti}^-, \text{?Fe}^-, \text{!Ti}^+, \text{!Se}^-, \text{?Ni}^+, \text{?Se}^+, \text{!Ni}^-\}$$

2ndExternal / 2ndInternal ( $A_3$ )

$$A_{3,0}^T = \{\text{ILE, ESE, LSI, SLE, ILI, ESI, LSE, SLI}\}$$

$$A_{3,0}^E = \{\text{?Ne}^+, \text{!Fe}^+, \text{!Ti}^+, \text{!Se}^-, \text{!Ni}^-, \text{?Fi}^-, \text{?Te}^-, \text{?Si}^+\}$$

$$A_{3,1}^T = \{\text{SEI, LII, EIE, IEI, SEE, LIE, EII, IEE}\}$$

$$A_{3,1}^E = \{\text{?Si}^-, \text{?Ti}^-, \text{?Fe}^-, \text{?Ni}^+, \text{?Se}^+, \text{!Te}^+, \text{!Fi}^+, \text{!Ne}^-\}$$

2ndBeta / 2ndDelta ( $A_4$ )

$$A_{4,0}^T = \{\text{ILE, SEI, EIE, LSI, SLE, IEI, LIE, ESI}\}$$

$$A_{4,0}^E = \{\text{?Ne}^+, \text{!Si}^-, \text{?Fe}^-, \text{!Ti}^+, \text{!Se}^-, \text{?Ni}^+, \text{!Te}^+, \text{?Fi}^-\}$$

$$A_{4,1}^T = \{\text{ESE, LII, SEE, ILI, LSE, EII, IEE, SLI}\}$$

$$A_{4,1}^E = \{\text{!Fe}^+, \text{?Ti}^-, \text{?Se}^+, \text{!Ni}^-, \text{?Te}^-, \text{!Fi}^+, \text{!Ne}^-, \text{?Si}^+\}$$

## Octad d

Democratic Octads ( $D$ )

1stAbstract / 1stInvolved ( $D_1$ )

$$D_{1,0}^T = \{\text{ILE, LII, LSI, IEI, ILI, LIE, LSE, IEE}\}$$

$$D_{1,0}^E = \{\text{?Ne}^+, \text{?Ti}^-, \text{!Ti}^+, \text{?Ni}^+, \text{!Ni}^-, \text{!Te}^+, \text{?Te}^-, \text{!Ne}^-\}$$

$$D_{1,1}^T = \{\text{SEI, ESE, EIE, SLE, SEE, ESI, EII, SLI}\}$$

$$D_{1,1}^E = \{\text{!Si}^-, \text{!Fe}^+, \text{?Fe}^-, \text{!Se}^-, \text{?Se}^+, \text{?Fi}^-, \text{!Fi}^+, \text{?Si}^+\}$$

## 1stAlpha / 1stGamma ( $D_2$ )

$$D_{2,0}^T = \{\text{ILE, SEI, ESE, LII, EIE, LSI, IEE, SLI}\}$$

$$D_{2,0}^E = \{\text{?Ne}^+, !\text{Si}^-, !\text{Fe}^+, ?\text{Ti}^-, ?\text{Fe}^-, !\text{Ti}^+, -\text{Ne}^-, ?\text{Si}^+\}$$

$$D_{2,1}^T = \{\text{SLE, IEI, SEE, ILI, LIE, ESI, LSE, EII}\}$$

$$D_{2,1}^E = \{\text{!Se}^-, ?\text{Ni}^+, ?\text{Se}^+, !\text{Ni}^-, !\text{Te}^+, ?\text{Fi}^-, ?\text{Te}^-, !\text{Fi}^+\}$$

## 2ndAbstract / 2ndInvolved ( $D_3$ )

$$D_{3,0}^T = \{\text{ILE, LII, EIE, SLE, ILI, LIE, EII, SLI}\}$$

$$D_{3,0}^E = \{\text{?Ne}^+, ?\text{Ti}^-, ?\text{Fe}^-, !\text{Se}^-, !\text{Ni}^-, !\text{Te}^+, !\text{Fi}^+, ?\text{Si}^+\}$$

$$D_{3,1}^T = \{\text{SEI, ESE, EIE, IEI, SEE, LIE, EII, IEE}\}$$

$$D_{3,1}^E = \{\text{?Si}^-, !\text{Fe}^+, !\text{Ti}^+, ?\text{Ni}^+, ?\text{Se}^+, ?\text{Fi}^-, ?\text{Te}^-, !\text{Ne}^-\}$$

## 2ndAlpha / 2ndGamma ( $D_4$ )

$$D_{4,0}^T = \{\text{ILE, SEI, ESE, LII, SLE, IEI, LSE, EII}\}$$

$$D_{4,0}^E = \{\text{?Ne}^+, !\text{Si}^-, !\text{Fe}^+, ?\text{Ti}^-, !\text{Se}^-, ?\text{Ni}^+, ?\text{Te}^-, !\text{Fi}^+\}$$

$$D_{4,1}^T = \{\text{EIE, LSI, SEE, ILI, LIE, ESI, IEE, SLI}\}$$

$$D_{4,1}^E = \{\text{?Fe}^-, !\text{Ti}^+, ?\text{Se}^+, !\text{Ni}^-, !\text{Te}^+, ?\text{Fi}^-, !\text{Ne}^-, ?\text{Si}^+\}$$

## Additional Note

- Also check out the dichotomy table for the Reinin space Kimani White and Andrew Joynton have mapped out: <https://docs.google.com/document/d/1Qn8X3vOp2TJAo-RSwtYsFhsKsE6ATPJrnHYHFt3ZZ6o/edit?tab=t.0>.
- And for an alternate arrangement of the Tencer-Minaev (TM) Table, check out Kimani White's iteration of the table, accessible here:  
<https://docs.google.com/document/d/1YTDf0oXVmxEEDrOLUyqZZz2lOIDw76yuWAA3ppjHMH0/edit?tab=t.0#heading=h.100owmjgo0e>.