Prof. Dr. Alfred Toth

Die dyadischen Teilrelationen der 5-wertigen Semiotik

1. Der vorliegende Beitrag bietet das vollständige System der 5-wertigen dyadischen Semiotik nach den Grundlagen, die in Toth (2026a, b) gelegt wurden.

2. Die dyadischen Teilrelationen der 5-wertigen Semiotik

2.1. Zeichen nach der Qualität des Zeichens selbst

$$
\begin{array}{|ccccc|}
1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\
— & — & — & — & — \\
— & — & — & — & — \\
— & — & — & — & — \\
— & — & — & — & — \\
\end{array}
$$

R = (1.1, 1.1) R^{-1} = (1.1, 1.1)

R = (1.1, 1.2) R^{-1} = (1.2, 1.1)

R = (1.1, 1.3) R^{-1} = (1.3, 1.1)

R = (1.1, 1.4) R^{-1} = (1.4, 1.1)

R = (1.1, 1.5) R^{-1} = (1.5, 1.1)

R = (1.2, 1.2) R^{-1} = (1.2, 1.2)

R = (1.2, 1.3) R^{-1} = (1.3, 1.2)

R = (1.2, 1.4) R^{-1} = (1.4, 1.2)

R = (1.2, 1.5) R^{-1} = (1.5, 1.2)

R = (1.3, 1.3) R^{-1} = (1.3, 1.3)

R = (1.3, 1.4) R^{-1} = (1.4, 1.3)

R = (1.3, 1.5) R^{-1} = (1.5, 1.3)

R = (1.4, 1.4) R^{-1} = (1.4, 1.4)

R = (1.4, 1.5) R^{-1} = (1.5, 1.4)

R = (1.5, 1.5) R^{-1} = (1.5, 1.5)

2.2. Zeichen nach nach der Beziehung zum Objekt

$$\begin{vmatrix} — & — & — & — & — \\ 2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\ — & — & — & — & — \\ — & — & — & — & — \\ — & — & — & — & — \end{vmatrix}$$

$R = (2.1, 2.1)$ $R^{-1} = (2.1, 2.1)$

$R = (2.1, 2.2)$ $R^{-1} = (2.2, 2.1)$

$R = (2.1, 2.3)$ $R^{-1} = (2.3, 2.1)$

$R = (2.1, 2.4)$ $R^{-1} = (2.4, 2.1)$

$R = (2.1, 2.5)$ $R^{-1} = (2.5, 2.1)$

$R = (2.2, 2.2)$ $R^{-1} = (2.2, 2.2)$

$R = (2.2, 2.3)$ $R^{-1} = (2.3, 2.2)$

$R = (2.2, 2.4)$ $R^{-1} = (2.4, 2.2)$

$R = (2.2, 2.5)$ $R^{-1} = (2.5, 2.2)$

$R = (2.3, 2.3)$ $R^{-1} = (2.3, 2.3)$

$R = (2.3, 2.4)$ $R^{-1} = (2.4, 2.3)$

$R = (2.3, 2.5)$ $R^{-1} = (2.5, 2.3)$

$R = (2.4, 2.4)$ $R^{-1} = (2.4, 2.4)$

$R = (2.4, 2.5)$ $R^{-1} = (2.5, 2.4)$

$R = (2.5, 2.5)$ $R^{-1} = (2.5, 2.5)$

2.3. Zeichen nach der Beziehung zum Ich-Subjekt

$$\begin{vmatrix} — & — & — & — & — \\ — & — & — & — & — \\ 3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\ — & — & — & — & — \\ — & — & — & — & — \end{vmatrix}$$

R = (3.1, 3.1)   R^{-1} = (3.1, 3.1)

R = (3.1, 3.2)   R^{-1} = (3.2, 3.1)

R = (3.1, 3.3)   R^{-1} = (3.3, 3.1)

R = (3.1, 3.4)   R^{-1} = (3.4, 3.1)

R = (3.1, 3.5)   R^{-1} = (3.5, 3.1)

R = (3.2, 3.2)   R^{-1} = (3.2, 3.2)

R = (3.2, 3.3)   R^{-1} = (3.3, 3.2)

R = (3.2, 3.4)   R^{-1} = (3.4, 3.2)

R = (3.2, 3.5)   R^{-1} = (3.5, 3.2)

R = (3.3, 3.3)   R^{-1} = (3.3, 3.3)

R = (3.3, 3.4)   R^{-1} = (3.4, 3.3)

R = (3.3, 3.5)   R^{-1} = (3.5, 3.3)

R = (3.4, 3.4)   R^{-1} = (3.4, 3.4)

R = (3.4, 3.5)   R^{-1} = (3.5, 3.4)

R = (3.5, 3.5)   R^{-1} = (3.5, 3.5)

2.4. Zeichen nach der Beziehung zum Du-Subjekt

$$\begin{vmatrix} — & — & — & — & — \\ — & — & — & — & — \\ — & — & — & — & — \\ 4.1 & 4.2 & 4.3 & 4.4 & 4.5 \\ — & — & — & — & — \end{vmatrix}$$

R = (4.1, 4.1)   R^{-1} = (4.1, 4.1)

R = (4.1, 4.2)   R^{-1} = (4.2, 4.1)

R = (4.1, 4.3)   R^{-1} = (4.3, 4.1)

R = (4.1, 4.4)   R^{-1} = (4.4, 4.1)

R = (4.1, 4.5)   R^{-1} = (4.5, 4.1)

R = (4.2, 4.2)   R^{-1} = (4.2, 4.2)

R = (4.2, 4.3) R^{-1} = (4.3, 4.2)

R = (4.2, 4.4) R^{-1} = (4.4, 4.2)

R = (4.2, 4.5) R^{-1} = (4.5, 4.2)

R = (4.3, 4.3) R^{-1} = (4.3, 4.3)

R = (4.3, 4.4) R^{-1} = (4.4, 4.3)

R = (4.3, 4.5) R^{-1} = (4.5, 4.3)

R = (4.4, 4.4) R^{-1} = (4.4, 4.4)

R = (4.4, 4.5) R^{-1} = (4.5, 4.4)

R = (4.5, 4.5) R^{-1} = (4.5, 4.5)

2.5. Zeichen nach der Beziehung zum Er-Subjekt

$$\begin{vmatrix} — & — & — & — & — \\ — & — & — & — & — \\ — & — & — & — & — \\ — & — & — & — & — \\ 5.1 & 5.2 & 5.3 & 5.4 & 5.5 \end{vmatrix}$$

R = (5.1, 5.1) R^{-1} = (5.1, 5.1)

R = (5.1, 5.2) R^{-1} = (5.2, 5.1)

R = (5.1, 5.3) R^{-1} = (5.3, 5.1)

R = (5.1, 5.4) R^{-1} = (5.4, 5.1)

R = (5.1, 5.5) R^{-1} = (5.5, 5.1)

R = (5.2, 5.2) R^{-1} = (5.2, 5.2)

R = (5.2, 5.3) R^{-1} = (5.3, 5.2)

R = (5.2, 5.4) R^{-1} = (5.4, 5.2)

R = (5.2, 5.5) R^{-1} = (5.5, 5.2)

R = (5.3, 5.3) R^{-1} = (5.3, 5.3)

R = (5.3, 5.4) R^{-1} = (5.4, 5.3)

R = (5.3, 5.5) R^{-1} = (5.5, 5.3)

R = (5.4, 5.4)   R^{-1} = (5.4, 5.4)

R = (5.4, 5.5)   R^{-1} = (5.5, 5.4)

R = (5.5, 5.5)   R^{-1} = (5.5, 5.5)

2.6. Zeichen nach der Qualität des Zeichens selbst und zum Objekt

$$
\begin{vmatrix}
1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\
2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\
— & — & — & — & — \\
— & — & — & — & — \\
— & — & — & — & —
\end{vmatrix}
$$

R = (1.1, 2.1)   R^{-1} = (2.1, 1.1)

R = (1.1, 2.2)   R^{-1} = (2.2, 1.1)

R = (1.1, 2.3)   R^{-1} = (2.3, 1.1)

R = (1.1, 2.4)   R^{-1} = (2.4, 1.1)

R = (1.1, 2.5)   R^{-1} = (2.5, 1.1)

R = (1.2, 2.2)   R^{-1} = (2.2, 1.2)

R = (1.2, 2.3)   R^{-1} = (2.3, 1.2)

R = (1.2, 2.4)   R^{-1} = (2.4, 1.2)

R = (1.2, 2.5)   R^{-1} = (2.5, 1.2)

R = (1.3, 2.3)   R^{-1} = (2.3, 1.3)

R = (1.3, 2.4)   R^{-1} = (2.4, 1.3)

R = (1.3, 2.5)   R^{-1} = (2.5, 1.3)

R = (1.4, 2.4)   R^{-1} = (2.4, 1.4)

R = (1.4, 2.5)   R^{-1} = (2.5, 1.4)

R = (1.5, 2.5)   R^{-1} = (2.5, 1.5)

2.7. Zeichen nach der Qualität des Zeichens selbst und zum Ich-Subjekt

$$
\begin{vmatrix}
1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\
— & — & — & — & — \\
3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\
— & — & — & — & — \\
— & — & — & — & —
\end{vmatrix}
$$

R = (1.1, 3.1) R^{-1} = (3.1, 1.1)

R = (1.1, 3.2) R^{-1} = (3.2, 1.1)

R = (1.1, 3.3) R^{-1} = (3.3, 1.1)

R = (1.1, 3.4) R^{-1} = (3.4, 1.1)

R = (1.1, 3.5) R^{-1} = (3.5, 1.1)

R = (1.2, 3.2) R^{-1} = (3.2, 1.2)

R = (1.2, 3.3) R^{-1} = (3.3, 1.2)

R = (1.2, 3.4) R^{-1} = (3.4, 1.2)

R = (1.2, 3.5) R^{-1} = (3.5, 1.2)

R = (1.3, 3.3) R^{-1} = (3.3, 1.3)

R = (1.3, 3.4) R^{-1} = (3.4, 1.3)

R = (1.3, 3.5) R^{-1} = (3.5, 1.3)

R = (1.4, 3.4) R^{-1} = (3.4, 1.4)

R = (1.4, 3.5) R^{-1} = (3.5, 1.4)

R = (1.5, 3.5) R^{-1} = (3.5, 1.5)

2.8. Zeichen nach der Qualität des Zeichens selbst und zum Du-Subjekt

$$
\begin{vmatrix}
1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\
— & — & — & — & — \\
— & — & — & — & — \\
4.1 & 4.2 & 4.3 & 4.4 & 4.5 \\
— & — & — & — & —
\end{vmatrix}
$$

R = (1.1, 4.1)   R^{-1} = (4.1, 1.1)

R = (1.1, 4.2)   R^{-1} = (4.2, 1.1)

R = (1.1, 4.3)   R^{-1} = (4.3, 1.1)

R = (1.1, 4.4)   R^{-1} = (4.4, 1.1)

R = (1.1, 4.5)   R^{-1} = (4.5, 1.1)

R = (1.2, 4.2)   R^{-1} = (4.2, 1.2)

R = (1.2, 4.3)   R^{-1} = (4.3, 1.2)

R = (1.2, 4.4)   R^{-1} = (4.4, 1.2)

R = (1.2, 4.5)   R^{-1} = (4.5, 1.2)

R = (1.3, 4.3)   R^{-1} = (4.3, 1.3)

R = (1.3, 4.4)   R^{-1} = (4.4, 1.3)

R = (1.3, 4.5)   R^{-1} = (4.5, 1.3)

R = (1.4, 4.4)   R^{-1} = (4.4, 1.4)

R = (1.4, 4.5)   R^{-1} = (4.5, 1.4)

R = (1.5, 4.5)   R^{-1} = (4.5, 1.5)

2.9. Zeichen nach der Qualität des Zeichens selbst und zum Er-Subjekt

$$
\begin{vmatrix}
1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\
— & — & — & — & — \\
— & — & — & — & — \\
— & — & — & — & — \\
5.1 & 5.2 & 5.3 & 5.4 & 5.5
\end{vmatrix}
$$

R = (1.1, 5.1)   R^{-1} = (5.1, 1.1)

R = (1.1, 5.2)   R^{-1} = (5.2, 1.1)

R = (1.1, 5.3)   R^{-1} = (5.3, 1.1)

R = (1.1, 5.4)   R^{-1} = (5.4, 1.1)

R = (1.1, 5.5)   R^{-1} = (5.5, 1.1)

R = (1.2, 5.2)   R^{-1} = (5.2, 1.2)

R = (1.2, 5.3) R^{-1} = (5.3, 1.2)

R = (1.2, 5.4) R^{-1} = (5.4, 1.2)

R = (1.2, 5.5) R^{-1} = (5.5, 1.2)

R = (1.3, 5.3) R^{-1} = (5.3, 1.3)

R = (1.3, 5.4) R^{-1} = (5.4, 1.3)

R = (1.3, 5.5) R^{-1} = (5.5, 1.3)

R = (1.4, 5.4) R^{-1} = (5.4, 1.4)

R = (1.4, 5.5) R^{-1} = (5.5, 1.4)

R = (1.5, 5.5) R^{-1} = (5.5, 1.5)

2.10. Zeichen nach der Beziehung zum Objekt und zum Ich-Subjekt

$$
\begin{vmatrix}
— & — & — & — & — \\
2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\
3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\
— & — & — & — & — \\
— & — & — & — & —
\end{vmatrix}
$$

R = (2.1, 3.1) R^{-1} = (3.1, 2.1)

R = (2.1, 3.2) R^{-1} = (3.2, 2.1)

R = (2.1, 3.3) R^{-1} = (3.3, 2.1)

R = (2.1, 3.4) R^{-1} = (3.4, 2.1)

R = (2.1, 3.5) R^{-1} = (3.5, 2.1)

R = (2.2, 3.2) R^{-1} = (3.2, 2.2)

R = (2.2, 3.3) R^{-1} = (3.3, 2.2)

R = (2.2, 3.4) R^{-1} = (3.4, 2.2)

R = (2.2, 3.5) R^{-1} = (3.5, 2.2)

R = (2.3, 3.3) R^{-1} = (3.3, 2.3)

R = (2.3, 3.4) R^{-1} = (3.4, 2.3)

R = (2.3, 3.5) R^{-1} = (3.5, 2.3)

R = (2.4, 3.4) R^{-1} = (3.4, 2.4)

R = (2.4, 3.5) R^{-1} = (3.5, 2.4)

R = (2.5, 3.5) R^{-1} = (3.5, 2.5)

2.11. Zeichen nach der Beziehung zum Objekt und zum Du-Subjekt

$$\begin{vmatrix} \underline{\quad} & \underline{\quad} & \underline{\quad} & \underline{\quad} & \underline{\quad} \\ 2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\ \underline{\quad} & \underline{\quad} & \underline{\quad} & \underline{\quad} & \underline{\quad} \\ 4.1 & 4.2 & 4.3 & 4.4 & 4.5 \\ \underline{\quad} & \underline{\quad} & \underline{\quad} & \underline{\quad} & \underline{\quad} \end{vmatrix}$$

R = (2.1, 4.1) R^{-1} = (4.1, 2.1)

R = (2.1, 4.2) R^{-1} = (4.2, 2.1)

R = (2.1, 4.3) R^{-1} = (4.3, 2.1)

R = (2.1, 4.4) R^{-1} = (4.4, 2.1)

R = (2.1, 4.5) R^{-1} = (4.5, 2.1)

R = (2.2, 4.2) R^{-1} = (4.2, 2.2)

R = (2.2, 4.3) R^{-1} = (4.3, 2.2)

R = (2.2, 4.4) R^{-1} = (4.4, 2.2)

R = (2.2, 4.5) R^{-1} = (4.5, 2.2)

R = (2.3, 4.3) R^{-1} = (4.3, 2.3)

R = (2.3, 4.4) R^{-1} = (4.4, 2.3)

R = (2.3, 4.5) R^{-1} = (4.5, 2.3)

R = (2.4, 4.4) R^{-1} = (4.4, 2.4)

R = (2.4, 4.5) R^{-1} = (4.5, 2.4)

R = (2.5, 4.5) R^{-1} = (4.5, 2.5)

2.12. Zeichen nach der Beziehung zum Objekt und zum Er-Subjekt

$$
\begin{vmatrix}
— & — & — & — & — \\
2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\
— & — & — & — & — \\
— & — & — & — & — \\
5.1 & 5.2 & 5.3 & 5.4 & 5.5
\end{vmatrix}
$$

$R = (2.1, 5.1)$ $R^{-1} = (5.1, 2.1)$

$R = (2.1, 5.2)$ $R^{-1} = (5.2, 2.1)$

$R = (2.1, 5.3)$ $R^{-1} = (5.3, 2.1)$

$R = (2.1, 5.4)$ $R^{-1} = (5.4, 2.1)$

$R = (2.1, 5.5)$ $R^{-1} = (5.5, 2.1)$

$R = (2.2, 5.2)$ $R^{-1} = (5.2, 2.2)$

$R = (2.2, 5.3)$ $R^{-1} = (5.3, 2.2)$

$R = (2.2, 5.4)$ $R^{-1} = (5.4, 2.2)$

$R = (2.2, 5.5)$ $R^{-1} = (5.5, 2.2)$

$R = (2.3, 5.3)$ $R^{-1} = (5.3, 2.3)$

$R = (2.3, 5.4)$ $R^{-1} = (5.4, 2.3)$

$R = (2.3, 5.5)$ $R^{-1} = (5.5, 2.3)$

$R = (2.4, 5.4)$ $R^{-1} = (5.4, 2.4)$

$R = (2.4, 5.5)$ $R^{-1} = (5.5, 2.4)$

$R = (2.5, 5.5)$ $R^{-1} = (5.5, 2.5)$

2.13. Zeichen nach der Beziehung zum Ich- und Du-Subjekt

$$
\begin{vmatrix}
— & — & — & — & — \\
— & — & — & — & — \\
3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\
4.1 & 4.2 & 4.3 & 4.4 & 4.5 \\
— & — & — & — & —
\end{vmatrix}
$$

R = (3.1, 4.1)   R⁻¹ = (4.1, 3.1)

R = (3.1, 4.2)   R⁻¹ = (4.2, 3.1)

R = (3.1, 4.3)   R⁻¹ = (4.3, 3.1)

R = (3.1, 4.4)   R⁻¹ = (4.4, 3.1)

R = (3.1, 4.5)   R⁻¹ = (4.5, 3.1)

R = (3.2, 4.2)   R⁻¹ = (4.2, 3.2)

R = (3.2, 4.3)   R⁻¹ = (4.3, 3.2)

R = (3.2, 4.4)   R⁻¹ = (4.4, 3.2)

R = (3.2, 4.5)   R⁻¹ = (4.5, 3.2)

R = (3.3, 4.3)   R⁻¹ = (4.3, 3.3)

R = (3.3, 4.4)   R⁻¹ = (4.4, 3.3)

R = (3.3, 4.5)   R⁻¹ = (4.5, 3.3)

R = (3.4, 4.4)   R⁻¹ = (4.4, 3.4)

R = (3.4, 4.5)   R⁻¹ = (4.5, 3.4)

R = (3.5, 4.5)   R⁻¹ = (4.5, 3.5)

2.14. Zeichen nach der Beziehung zum Du- und Er-Subjekt

$$
\begin{vmatrix}
— & — & — & — & — \\
— & — & — & — & — \\
— & — & — & — & — \\
4.1 & 4.2 & 4.3 & 4.4 & 4.5 \\
5.1 & 5.2 & 5.3 & 5.4 & 5.5
\end{vmatrix}
$$

R = (4.1, 5.1)   R⁻¹ = (5.1, 4.1)

R = (4.1, 5.2)   R⁻¹ = (5.2, 4.1)

R = (4.1, 5.3)   R⁻¹ = (5.3, 4.1)

R = (4.1, 5.4)   R⁻¹ = (5.4, 4.1)

R = (4.1, 5.5)   R⁻¹ = (5.5, 4.1)

R = (4.2, 5.2)   R⁻¹ = (5.2, 4.2)

R = (4.2, 5.3)   R⁻¹ = (5.3, 4.2)

R = (4.2, 5.4)   R⁻¹ = (5.4, 4.2)

R = (4.2, 5.5)   R⁻¹ = (5.5, 4.2)

R = (4.3, 5.3)   R⁻¹ = (5.3, 4.3)

R = (4.3, 5.4)   R⁻¹ = (5.4, 4.3)

R = (4.3, 5.5)   R⁻¹ = (5.5, 4.3)

R = (4.4, 5.4)   R⁻¹ = (5.4, 4.4)

R = (4.4, 5.5)   R⁻¹ = (5.5, 4.4)

R = (4.5, 5.5)   R⁻¹ = (5.5, 4.5)

2.15. Zeichen nach der Beziehung zum Ich- und Er-Subjekt

$$\begin{vmatrix} — & — & — & — & — \\ — & — & — & — & — \\ 3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\ — & — & — & — & — \\ 5.1 & 5.2 & 5.3 & 5.4 & 5.5 \end{vmatrix}$$

R = (3.1, 5.1)   R⁻¹ = (5.1, 3.1)

R = (3.1, 5.2)   R⁻¹ = (5.2, 3.1)

R = (3.1, 5.3)   R⁻¹ = (5.3, 3.1)

R = (3.1, 5.4)   R⁻¹ = (5.4, 3.1)

R = (3.1, 5.5)   R⁻¹ = (5.5, 3.1)

R = (3.2, 5.2)   R⁻¹ = (5.2, 3.2)

R = (3.2, 5.3)   R⁻¹ = (5.3, 3.2)

R = (3.2, 5.4)   R⁻¹ = (5.4, 3.2)

R = (3.2, 5.5)   R⁻¹ = (5.5, 3.2)

R = (3.3, 5.3)   R⁻¹ = (5.3, 3.3)

R = (3.3, 5.4)   R⁻¹ = (5.4, 3.3)

R = (3.3, 5.5)   R⁻¹ = (5.5, 3.3)

R = (3.4, 5.4)   R⁻¹ = (5.4, 3.4)

R = (3.4, 5.5)   R⁻¹ = (5.5, 3.4)

R = (3.5, 5.5)   R⁻¹ = (5.5, 3.5)

2.16. Zeichen nach der Qualität des Zeichens, zum Objekt und zum Ich-Subjekt

$$
\begin{vmatrix}
1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\
2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\
3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\
— & — & — & — & — \\
— & — & — & — & —
\end{vmatrix}
$$

R = (1.1, 1.1)   R⁻¹ = (1.1, 1.1)

R = (1.1, 1.2)   R⁻¹ = (1.2, 1.1)

R = (1.1, 1.3)   R⁻¹ = (1.3, 1.1)

R = (1.1, 1.4)   R⁻¹ = (1.4, 1.1)

R = (1.1, 1.5)   R⁻¹ = (1.5, 1.1)

R = (1.1, 2.1)   R⁻¹ = (2.1, 1.1)

R = (1.1, 2.2)   R⁻¹ = (2.2, 1.1)

R = (1.1, 2.3)   R⁻¹ = (2.3, 1.1)

R = (1.1, 2.4)   R⁻¹ = (2.4, 1.1)

R = (1.1, 2.5)   R⁻¹ = (2.5, 1.1)

R = (1.1, 3.1)   R⁻¹ = (3.1, 1.1)

R = (1.1, 3.2)   R⁻¹ = (3.2, 1.1)

R = (1.1, 3.3)   R⁻¹ = (3.3, 1.1)

R = (1.1, 3.4)   R⁻¹ = (3.4, 1.1)

R = (1.1, 3.5)   R⁻¹ = (3.5, 1.1)

R = (1.2, 1.2)   R⁻¹ = (1.2, 1.2)

R = (1.2, 1.3)   R⁻¹ = (1.3, 1.2)

R = (1.2, 1.4)   R⁻¹ = (1.4, 1.2)

R = (1.2, 1.5)   R^{-1} = (1.5, 1.2)

R = (1.2, 2.1)   R^{-1} = (2.1, 1.2)

R = (1.2, 2.2)   R^{-1} = (2.2, 1.2)

R = (1.2, 2.3)   R^{-1} = (2.3, 1.2)

R = (1.2, 2.4)   R^{-1} = (2.4, 1.2)

R = (1.2, 2.5)   R^{-1} = (2.5, 1.2)

R = (1.2, 3.1)   R^{-1} = (3.1, 1.1)

R = (1.2, 3.2)   R^{-1} = (3.2, 1.2)

R = (1.2, 3.3)   R^{-1} = (3.3, 1.2)

R = (1.2, 3.4)   R^{-1} = (3.4, 1.2)

R = (1.2, 3.5)   R^{-1} = (3.5, 1.2)

R = (1.3, 1.3)   R^{-1} = (1.3, 1.3)

R = (1.3, 1.4)   R^{-1} = (1.4, 1.3)

R = (1.3, 1.5)   R^{-1} = (1.5, 1.3)

R = (1.3, 2.1)   R^{-1} = (2.1, 1.3)

R = (1.3, 2.2)   R^{-1} = (2.2, 1.3)

R = (1.3, 2.3)   R^{-1} = (2.3, 1.3)

R = (1.3, 2.4)   R^{-1} = (2.4, 1.3)

R = (1.3, 2.5)   R^{-1} = (2.5, 1.3)

R = (1.3, 3.1)   R^{-1} = (3.1, 1.3)

R = (1.3, 3.2)   R^{-1} = (3.2, 1.3)

R = (1.3, 3.3)   R^{-1} = (3.3, 1.3)

R = (1.3, 3.4)   R^{-1} = (3.4, 1.3)

R = (1.3, 3.5)   R^{-1} = (3.5, 1.3)

R = (1.4, 1.4)   R^{-1} = (1.4, 1.4)

R = (1.4, 1.5)   R^{-1} = (1.5, 1.4)

R = (1.4, 2.1)   R^{-1} = (2.1, 1.4)

R = (1.4, 2.2)   R^{-1} = (2.2, 1.4)

R = (1.4, 2.3)   R^{-1} = (2.3, 1.4)

R = (1.4, 2.4)   R^{-1} = (2.4, 1.4)

R = (1.4, 2.5)   R^{-1} = (2.5, 1.4)

R = (1.4, 3.1)   R^{-1} = (3.1, 1.4)

R = (1.4, 3.2)   R^{-1} = (3.2, 1.4)

R = (1.4, 3.3)   R^{-1} = (3.3, 1.4)

R = (1.4, 3.4)   R^{-1} = (3.4, 1.4)

R = (1.4, 3.5)   R^{-1} = (3.5, 1.4)

R = (1.5, 1.5)   R^{-1} = (1.5, 1.5)

R = (1.5, 2.1)   R^{-1} = (2.1, 1.5)

R = (1.5, 2.2)   R^{-1} = (2.2, 1.5)

R = (1.5, 2.3)   R^{-1} = (2.3, 1.5)

R = (1.5, 2.4)   R^{-1} = (2.4, 1.5)

R = (1.5, 2.5)   R^{-1} = (2.5, 1.5)

R = (1.5, 3.1)   R^{-1} = (3.1, 1.5)

R = (1.5, 3.2)   R^{-1} = (3.2, 1.5)

R = (1.5, 3.3)   R^{-1} = (3.3, 1.5)

R = (1.5, 3.4)   R^{-1} = (3.4, 1.5)

R = (1.5, 3.5)   R^{-1} = (3.5, 1.5)

R = (2.1, 2.1)   R^{-1} = (2.1, 2.1)

R = (2.1, 2.2)   R^{-1} = (2.2, 2.1)

R = (2.1, 2.3)   R^{-1} = (2.3, 2.1)

R = (2.1, 2.4)   R^{-1} = (2.4, 2.1)

R = (2.1, 2.5)   R^{-1} = (2.5, 2.1)

R = (2.1, 3.1)   R^{-1} = (3.1, 2.1)

R = (2.1, 3.2)   R^{-1} = (3.2, 2.1)

R = (2.1, 3.3) R^{-1} = (3.3, 2.1)

R = (2.1, 3.4) R^{-1} = (3.4, 2.1)

R = (2.1, 3.5) R^{-1} = (3.5, 2.1)

R = (2.2, 2.2) R^{-1} = (2.2, 2.2)

R = (2.2, 2.3) R^{-1} = (2.3, 2.2)

R = (2.2, 2.4) R^{-1} = (2.4, 2.2)

R = (2.2, 2.5) R^{-1} = (2.5, 2.2)

R = (2.2, 3.1) R^{-1} = (3.1, 2.2)

R = (2.2, 3.2) R^{-1} = (3.2, 2.2)

R = (2.2, 3.3) R^{-1} = (3.3, 2.2)

R = (2.2, 3.4) R^{-1} = (3.4, 2.2)

R = (2.2, 3.5) R^{-1} = (3.5, 2.2)

R = (2.3, 2.3) R^{-1} = (2.3, 2.3)

R = (2.3, 2.4) R^{-1} = (2.4, 2.3)

R = (2.3, 2.5) R^{-1} = (2.5, 2.3)

R = (2.3, 3.1) R^{-1} = (3.1, 2.3)

R = (2.3, 3.2) R^{-1} = (3.2, 2.3)

R = (2.3, 3.3) R^{-1} = (3.3, 2.3)

R = (2.3, 3.4) R^{-1} = (3.4, 2.3)

R = (2.3, 3.5) R^{-1} = (3.5, 2.3)

R = (2.4, 2.4) R^{-1} = (2.4, 2.4)

R = (2.4, 2.5) R^{-1} = (2.5, 2.4)

R = (2.4, 3.1) R^{-1} = (3.1, 2.4)

R = (2.4, 3.2) R^{-1} = (3.2, 2.4)

R = (2.4, 3.3) R^{-1} = (3.3, 2.4)

R = (2.4, 3.4) R^{-1} = (3.4, 2.4)

R = (2.4, 3.5) R^{-1} = (3.5, 2.4)

R = (2.5, 2.5)   R^{-1} = (2.5, 2.5)

R = (2.5, 3.1)   R^{-1} = (3.1, 2.5)

R = (2.5, 3.2)   R^{-1} = (3.2, 2.5)

R = (2.5, 3.3)   R^{-1} = (3.3, 2.5)

R = (2.5, 3.4)   R^{-1} = (3.4, 2.5)

R = (2.5, 3.5)   R^{-1} = (3.5, 2.5)

R = (3.1, 3.1)   R^{-1} = (3.1, 3.1)

R = (3.1, 3.2)   R^{-1} = (3.2, 3.1)

R = (3.1, 3.3)   R^{-1} = (3.3, 3.1)

R = (3.1, 3.4)   R^{-1} = (3.4, 3.1)

R = (3.1, 3.5)   R^{-1} = (3.5, 3.1)

R = (3.2, 3.2)   R^{-1} = (3.2, 3.2)

R = (3.2, 3.3)   R^{-1} = (3.3, 3.2)

R = (3.2, 3.4)   R^{-1} = (3.4, 3.2)

R = (3.2, 3.5)   R^{-1} = (3.5, 3.2)

R = (3.3, 3.3)   R^{-1} = (3.3, 3.3)

R = (3.3, 3.4)   R^{-1} = (3.4, 3.3)

R = (3.3, 3.5)   R^{-1} = (3.5, 3.3)

R = (3.4, 3.4)   R^{-1} = (3.4, 3.4)

R = (3.4, 3.5)   R^{-1} = (3.5, 3.4)

R = (3.5, 3.5)   R^{-1} = (3.5, 3.5)

2.17. Zeichen nach der Qualität des Zeichens, zum Objekt und zum Du-Subjekt

1.1	1.2	1.3	1.4	1.5
2.1	2.2	2.3	2.4	2.5
—	—	—	—	—
4.1	4.2	4.3	4.4	4.5
—	—	—	—	—

R = (1.1, 1.1) R^{-1} = (1.1, 1.1)

R = (1.1, 1.2) R^{-1} = (1.2, 1.1)

R = (1.1, 1.3) R^{-1} = (1.3, 1.1)

R = (1.1, 1.4) R^{-1} = (1.4, 1.1)

R = (1.1, 1.5) R^{-1} = (1.5, 1.1)

R = (1.1, 2.1) R^{-1} = (2.1, 1.1)

R = (1.1, 2.2) R^{-1} = (2.2, 1.1)

R = (1.1, 2.3) R^{-1} = (2.3, 1.1)

R = (1.1, 2.4) R^{-1} = (2.4, 1.1)

R = (1.1, 2.5) R^{-1} = (2.5, 1.1)

R = (1.1, 4.1) R^{-1} = (4.1, 1.1)

R = (1.1, 4.2) R^{-1} = (4.2, 1.1)

R = (1.1, 4.3) R^{-1} = (4.3, 1.1)

R = (1.1, 4.4) R^{-1} = (4.4, 1.1)

R = (1.1, 4.5) R^{-1} = (4.5, 1.1)

R = (1.2, 1.2) R^{-1} = (1.2, 1.2)

R = (1.2, 1.3) R^{-1} = (1.3, 1.2)

R = (1.2, 1.4) R^{-1} = (1.4, 1.2)

R = (1.2, 1.5) R^{-1} = (1.5, 1.2)

R = (1.2, 2.1) R^{-1} = (2.1, 1.2)

R = (1.2, 2.2) R^{-1} = (2.2, 1.2)

R = (1.2, 2.3) R^{-1} = (2.3, 1.2)

R = (1.2, 2.4) R^{-1} = (2.4, 1.2)

R = (1.2, 2.5) R^{-1} = (2.5, 1.2)

R = (1.2, 4.1) R^{-1} = (4.1, 1.2)

R = (1.2, 4.2) R^{-1} = (4.2, 1.2)

R = (1.2, 4.3) R^{-1} = (4.3, 1.2)

R = (1.2, 4.4)   R⁻¹ = (4.4, 1.2)

R = (1.2, 4.5)   R⁻¹ = (4.5, 1.2)

R = (1.3, 1.3)   R⁻¹ = (1.3, 1.3)

R = (1.3, 1.4)   R⁻¹ = (1.4, 1.3)

R = (1.3, 1.5)   R⁻¹ = (1.5, 1.3)

R = (1.3, 2.1)   R⁻¹ = (2.1, 1.3)

R = (1.3, 2.2)   R⁻¹ = (2.2, 1.3)

R = (1.3, 2.3)   R⁻¹ = (2.3, 1.3)

R = (1.3, 2.4)   R⁻¹ = (2.4, 1.3)

R = (1.3, 2.5)   R⁻¹ = (2.5, 1.3)

R = (1.3, 4.1)   R⁻¹ = (4.1, 1.3)

R = (1.3, 4.2)   R⁻¹ = (4.2, 1.3)

R = (1.3, 4.3)   R⁻¹ = (4.3, 1.3)

R = (1.3, 4.4)   R⁻¹ = (4.4, 1.3)

R = (1.3, 4.5)   R⁻¹ = (4.5, 1.3)

R = (1.4, 1.4)   R⁻¹ = (1.4, 1.4)

R = (1.4, 1.5)   R⁻¹ = (1.5, 1.4)

R = (1.4, 2.1)   R⁻¹ = (2.1, 1.4)

R = (1.4, 2.2)   R⁻¹ = (2.2, 1.4)

R = (1.4, 2.3)   R⁻¹ = (2.3, 1.4)

R = (1.4, 2.4)   R⁻¹ = (2.4, 1.4)

R = (1.4, 2.5)   R⁻¹ = (2.5, 1.4)

R = (1.4, 4.1)   R⁻¹ = (4.1, 1.4)

R = (1.4, 4.2)   R⁻¹ = (4.2, 1.4)

R = (1.4, 4.3)   R⁻¹ = (4.3, 1.4)

R = (1.4, 4.4)   R⁻¹ = (4.4, 1.4)

R = (1.4, 4.5)   R⁻¹ = (4.5, 1.4)

R = (1.5, 1.5)   R^{-1} = (1.5, 1.5)

R = (1.5, 2.1)   R^{-1} = (2.1, 1.5)

R = (1.5, 2.2)   R^{-1} = (2.2, 1.5)

R = (1.5, 2.3)   R^{-1} = (2.3, 1.5)

R = (1.5, 2.4)   R^{-1} = (2.4, 1.5)

R = (1.5, 2.5)   R^{-1} = (2.5, 1.5)

R = (1.5, 4.1)   R^{-1} = (4.1, 1.5)

R = (1.5, 4.2)   R^{-1} = (4.2, 1.5)

R = (1.5, 4.3)   R^{-1} = (4.3, 1.5)

R = (1.5, 4.4)   R^{-1} = (4.4, 1.5)

R = (1.5, 4.5)   R^{-1} = (4.5, 1.5)

R = (2.1, 2.1)   R^{-1} = (2.1, 2.1)

R = (2.1, 2.2)   R^{-1} = (2.2, 2.1)

R = (2.1, 2.3)   R^{-1} = (2.3, 2.1)

R = (2.1, 2.4)   R^{-1} = (2.4, 2.1)

R = (2.1, 2.5)   R^{-1} = (2.5, 2.1)

R = (2.1, 3.1)   R^{-1} = (3.1, 2.1)

R = (2.1, 3.2)   R^{-1} = (3.2, 2.1)

R = (2.1, 3.3)   R^{-1} = (3.3, 2.1)

R = (2.1, 3.4)   R^{-1} = (3.4, 2.1)

R = (2.1, 3.5)   R^{-1} = (3.5, 2.1)

R = (2.2, 2.2)   R^{-1} = (2.2, 2.2)

R = (2.2, 2.3)   R^{-1} = (2.3, 2.2)

R = (2.2, 2.4)   R^{-1} = (2.4, 2.2)

R = (2.2, 2.5)   R^{-1} = (2.5, 2.2)

R = (2.2, 4.1)   R^{-1} = (4.1, 2.2)

R = (2.2, 4.2)   R^{-1} = (4.2, 2.2)

R = (2.2, 4.3) R^{-1} = (4.3, 2.2)

R = (2.2, 4.4) R^{-1} = (4.4, 2.2)

R = (2.2, 4.5) R^{-1} = (4.5, 2.2)

R = (2.3, 2.3) R^{-1} = (2.3, 2.3)

R = (2.3, 2.4) R^{-1} = (2.4, 2.3)

R = (2.3, 2.5) R^{-1} = (2.5, 2.3)

R = (2.3, 4.1) R^{-1} = (4.1, 2.3)

R = (2.3, 4.2) R^{-1} = (4.2, 2.3)

R = (2.3, 4.3) R^{-1} = (4.3, 2.3)

R = (2.3, 4.4) R^{-1} = (4.4, 2.3)

R = (2.3, 4.5) R^{-1} = (4.5, 2.3)

R = (2.4, 2.4) R^{-1} = (2.4, 2.4)

R = (2.4, 2.5) R^{-1} = (2.5, 2.4)

R = (2.4, 4.1) R^{-1} = (4.1, 2.4)

R = (2.4, 4.2) R^{-1} = (4.2, 2.4)

R = (2.4, 4.3) R^{-1} = (4.3, 2.4)

R = (2.4, 4.4) R^{-1} = (4.4, 2.4)

R = (2.4, 4.5) R^{-1} = (4.5, 2.4)

R = (2.5, 2.5) R^{-1} = (2.5, 2.5)

R = (2.5, 4.1) R^{-1} = (4.1, 2.5)

R = (2.5, 4.2) R^{-1} = (4.2, 2.5)

R = (2.5, 4.3) R^{-1} = (4.3, 2.5)

R = (2.5, 4.4) R^{-1} = (4.4, 2.5)

R = (2.5, 4.5) R^{-1} = (4.5, 2.5)

R = (4.1, 4.1) R^{-1} = (4.1, 4.1)

R = (4.1, 4.2) R^{-1} = (4.2, 4.1)

R = (4.1, 4.3) R^{-1} = (4.3, 4.1)

R = (4.1, 4.4)   R⁻¹ = (4.4, 4.1)

R = (4.1, 4.5)   R^{-1} = (4.5, 4.1)

R = (4.2, 4.2)   R^{-1} = (4.2, 4.2)

R = (4.2, 4.3)   R^{-1} = (4.3, 4.2)

R = (4.2, 4.4)   R^{-1} = (4.4, 4.2)

R = (4.2, 4.5)   R^{-1} = (4.5, 4.2)

R = (4.3, 4.3)   R^{-1} = (4.3, 4.3)

R = (4.3, 4.4)   R^{-1} = (4.4, 4.3)

R = (4.3, 4.5)   R^{-1} = (4.5, 4.3)

R = (4.4, 4.4)   R^{-1} = (4.4, 4.4)

R = (4.4, 4.5)   R^{-1} = (4.5, 4.4)

R = (4.5, 4.5)   R^{-1} = (4.5, 4.5)

2.18. Zeichen nach der Qualität des Zeichens, zum Objekt und zum Er-Subjekt

$$\begin{vmatrix} 1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\ 2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\ — & — & — & — & — \\ — & — & — & — & — \\ 5.1 & 5.2 & 5.3 & 5.4 & 5.5 \end{vmatrix}$$

R = (1.1, 1.1)   R^{-1} = (1.1, 1.1)

R = (1.1, 1.2)   R^{-1} = (1.2, 1.1)

R = (1.1, 1.3)   R^{-1} = (1.3, 1.1)

R = (1.1, 1.4)   R^{-1} = (1.4, 1.1)

R = (1.1, 1.5)   R^{-1} = (1.5, 1.1)

R = (1.1, 2.1)   R^{-1} = (2.1, 1.1)

R = (1.1, 2.2)   R^{-1} = (2.2, 1.1)

R = (1.1, 2.3)   R^{-1} = (2.3, 1.1)

R = (1.1, 2.4)   R^{-1} = (2.4, 1.1)

R = (1.1, 2.5)   R^{-1} = (2.5, 1.1)

R = (1.1, 5.1)   R^{-1} = (5.1, 1.1)

R = (1.1, 5.2)   R^{-1} = (5.2, 1.1)

R = (1.1, 5.3)   R^{-1} = (5.3, 1.1)

R = (1.1, 5.4)   R^{-1} = (5.4, 1.1)

R = (1.1, 5.5)   R^{-1} = (5.5, 1.1)

R = (1.2, 1.2)   R^{-1} = (1.2, 1.2)

R = (1.2, 1.3)   R^{-1} = (1.3, 1.2)

R = (1.2, 1.4)   R^{-1} = (1.4, 1.2)

R = (1.2, 1.5)   R^{-1} = (1.5, 1.2)

R = (1.2, 2.1)   R^{-1} = (2.1, 1.2)

R = (1.2, 2.2)   R^{-1} = (2.2, 1.2)

R = (1.2, 2.3)   R^{-1} = (2.3, 1.2)

R = (1.2, 2.4)   R^{-1} = (2.4, 1.2)

R = (1.2, 2.5)   R^{-1} = (2.5, 1.2)

R = (1.2, 5.1)   R^{-1} = (5.1, 1.2)

R = (1.2, 5.2)   R^{-1} = (5.2, 1.2)

R = (1.2, 5.3)   R^{-1} = (5.3, 1.2)

R = (1.2, 5.4)   R^{-1} = (5.4, 1.2)

R = (1.2, 5.5)   R^{-1} = (5.5, 1.2)

R = (1.3, 1.3)   R^{-1} = (1.3, 1.3)

R = (1.3, 1.4)   R^{-1} = (1.4, 1.3)

R = (1.3, 1.5)   R^{-1} = (1.5, 1.3)

R = (1.3, 2.1)   R^{-1} = (2.1, 1.3)

R = (1.3, 2.2)   R^{-1} = (2.2, 1.3)

R = (1.3, 2.3)   R^{-1} = (2.3, 1.3)

R = (1.3, 2.4)   R^{-1} = (2.4, 1.3)

R = (1.3, 2.5) R^{-1} = (2.5, 1.3)

R = (1.3, 5.1) R^{-1} = (5.1, 1.3)

R = (1.3, 5.2) R^{-1} = (5.2, 1.3)

R = (1.3, 5.3) R^{-1} = (5.3, 1.3)

R = (1.3, 5.4) R^{-1} = (5.4, 1.3)

R = (1.3, 5.5) R^{-1} = (5.5, 1.3)

R = (1.4, 1.4) R^{-1} = (1.4, 1.4)

R = (1.4, 1.5) R^{-1} = (1.5, 1.4)

R = (1.4, 2.1) R^{-1} = (2.1, 1.4)

R = (1.4, 2.2) R^{-1} = (2.2, 1.4)

R = (1.4, 2.3) R^{-1} = (2.3, 1.4)

R = (1.4, 2.4) R^{-1} = (2.4, 1.4)

R = (1.4, 2.5) R^{-1} = (2.5, 1.4)

R = (1.4, 5.1) R^{-1} = (5.1, 1.4)

R = (1.4, 5.2) R^{-1} = (5.2, 1.4)

R = (1.4, 5.3) R^{-1} = (5.3, 1.4)

R = (1.4, 5.4) R^{-1} = (5.4, 1.4)

R = (1.4, 5.5) R^{-1} = (5.5, 1.4)

R = (1.5, 1.5) R^{-1} = (1.5, 1.5)

R = (1.5, 2.1) R^{-1} = (2.1, 1.5)

R = (1.5, 2.2) R^{-1} = (2.2, 1.5)

R = (1.5, 2.3) R^{-1} = (2.3, 1.5)

R = (1.5, 2.4) R^{-1} = (2.4, 1.5)

R = (1.5, 2.5) R^{-1} = (2.5, 1.5)

R = (1.5, 5.1) R^{-1} = (5.1, 1.5)

R = (1.5, 5.2) R^{-1} = (5.2, 1.5)

R = (1.5, 5.3) R^{-1} = (5.3, 1.5)

R = (1.5, 5.4) R^{-1} = (5.4, 1.5)

R = (1.5, 5.5) R^{-1} = (55, 1.5)

R = (2.1, 2.1) R^{-1} = (2.1, 2.1)

R = (2.1, 2.2) R^{-1} = (2.2, 2.1)

R = (2.1, 2.3) R^{-1} = (2.3, 2.1)

R = (2.1, 2.4) R^{-1} = (2.4, 2.1)

R = (2.1, 2.5) R^{-1} = (2.5, 2.1)

R = (2.1, 5.1) R^{-1} = (5.1, 2.1)

R = (2.1, 5.2) R^{-1} = (5.2, 2.1)

R = (2.1, 5.3) R^{-1} = (5.3, 2.1)

R = (2.1, 5.4) R^{-1} = (5.4, 2.1)

R = (2.1, 5.5) R^{-1} = (5.5, 2.1)

R = (2.2, 2.2) R^{-1} = (2.2, 2.2)

R = (2.2, 2.3) R^{-1} = (2.3, 2.2)

R = (2.2, 2.4) R^{-1} = (2.4, 2.2)

R = (2.2, 2.5) R^{-1} = (2.5, 2.2)

R = (2.2, 5.1) R^{-1} = (5.1, 2.2)

R = (2.2, 5.2) R^{-1} = (5.2, 2.2)

R = (2.2, 5.3) R^{-1} = (5.3, 2.2)

R = (2.2, 5.4) R^{-1} = (5.4, 2.2)

R = (2.2, 5.5) R^{-1} = (5.5, 2.2)

R = (2.3, 2.3) R^{-1} = (2.3, 2.3)

R = (2.3, 2.4) R^{-1} = (2.4, 2.3)

R = (2.3, 2.5) R^{-1} = (2.5, 2.3)

R = (2.3, 5.1) R^{-1} = (5.1, 2.3)

R = (2.3, 5.2) R^{-1} = (5.2, 2.3)

R = (2.3, 5.3) R^{-1} = (5.3, 2.3)

R = (2.3, 5.4)   R^{-1} = (5.4, 2.3)

R = (2.3, 5.5)   R^{-1} = (5.5, 2.3)

R = (2.4, 2.4)   R^{-1} = (2.4, 2.4)

R = (2.4, 2.5)   R^{-1} = (2.5, 2.4)

R = (2.4, 5.1)   R^{-1} = (5.1, 2.4)

R = (2.4, 5.2)   R^{-1} = (5.2, 2.4)

R = (2.4, 5.3)   R^{-1} = (5.3, 2.4)

R = (2.4, 5.4)   R^{-1} = (5.4, 2.4)

R = (2.4, 5.5)   R^{-1} = (5.5, 2.4)

R = (2.5, 2.5)   R^{-1} = (2.5, 2.5)

R = (2.5, 5.1)   R^{-1} = (5.1, 2.5)

R = (2.5, 5.2)   R^{-1} = (5.2, 2.5)

R = (2.5, 5.3)   R^{-1} = (5.3, 2.5)

R = (2.5, 5.4)   R^{-1} = (5.4, 2.5)

R = (2.5, 5.5)   R^{-1} = (5.5, 2.5)

R = (5.1, 5.1)   R^{-1} = (5.1, 5.1)

R = (5.1, 5.2)   R^{-1} = (5.2, 5.1)

R = (5.1, 5.3)   R^{-1} = (5.3, 5.1)

R = (5.1, 5.4)   R^{-1} = (5.4, 5.1)

R = (5.1, 5.5)   R^{-1} = (5.5, 5.1)

R = (5.2, 5.2)   R^{-1} = (5.2, 5.2)

R = (5.2, 5.3)   R^{-1} = (5.3, 5.2)

R = (5.2, 5.4)   R^{-1} = (5.4, 5.2)

R = (5.2, 5.5)   R^{-1} = (5.5, 5.2)

R = (5.3, 5.3)   R^{-1} = (5.3, 5.3)

R = (5.3, 5.4)   R^{-1} = (5.4, 5.3)

R = (5.3, 5.5)   R^{-1} = (5.5, 5.3)

R = (5.4, 5.4)   R⁻¹ = (5.4, 5.4)

R = (5.4, 5.5)   R⁻¹ = (5.5, 5.4)

R = (5.5, 5.5)   R⁻¹ = (5.5, 5.5)

2.19. Zeichen nach der Qualität des Zeichens, zum Objekt, zum Ich- und Du-Subjekt

$$
\begin{vmatrix}
1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\
2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\
3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\
4.1 & 4.2 & 4.3 & 4.4 & 4.5 \\
— & — & — & — & —
\end{vmatrix}
$$

R = (1.1, 1.1)   R⁻¹ = (1.1, 1.1)

R = (1.1, 1.2)   R⁻¹ = (1.2, 1.1)

R = (1.1, 1.3)   R⁻¹ = (1.3, 1.1)

R = (1.1, 1.4)   R⁻¹ = (1.4, 1.1)

R = (1.1, 1.5)   R⁻¹ = (1.5, 1.1)

R = (1.1, 2.1)   R⁻¹ = (2.1, 1.1)

R = (1.1, 2.2)   R⁻¹ = (2.2, 1.1)

R = (1.1, 2.3)   R⁻¹ = (2.3, 1.1)

R = (1.1, 2.4)   R⁻¹ = (2.4, 1.1)

R = (1.1, 2.5)   R⁻¹ = (2.5, 1.1)

R = (1.1, 3.1)   R⁻¹ = (3.1, 1.1)

R = (1.1, 3.2)   R⁻¹ = (3.2, 1.1)

R = (1.1, 3.3)   R⁻¹ = (3.3, 1.1)

R = (1.1, 3.4)   R⁻¹ = (3.4, 1.1)

R = (1.1, 3.5)   R⁻¹ = (3.5, 1.1)

R = (1.1, 4.1)   R⁻¹ = (4.1, 1.1)

R = (1.1, 4.2)   R⁻¹ = (4.2, 1.1)

R = (1.1, 4.3)   R⁻¹ = (4.3, 1.1)

R = (1.1, 4.4) R^{-1} = (4.4, 1.1)

R = (1.1, 4.5) R^{-1} = (4.5, 1.1)

R = (1.2, 1.2) R^{-1} = (1.2, 1.2)

R = (1.2, 1.3) R^{-1} = (1.3, 1.2)

R = (1.2, 1.4) R^{-1} = (1.4, 1.2)

R = (1.2, 1.5) R^{-1} = (1.5, 1.2)

R = (1.2, 2.1) R^{-1} = (2.1, 1.2)

R = (1.2, 2.2) R^{-1} = (2.2, 1.2)

R = (1.2, 2.3) R^{-1} = (2.3, 1.2)

R = (1.2, 2.4) R^{-1} = (2.4, 1.2)

R = (1.2, 2.5) R^{-1} = (2.5, 1.2)

R = (1.2, 3.1) R^{-1} = (3.1, 1.2)

R = (1.2, 3.2) R^{-1} = (3.2, 1.2)

R = (1.2, 3.3) R^{-1} = (3.3, 1.2)

R = (1.2, 3.4) R^{-1} = (3.4, 1.2)

R = (1.2, 3.5) R^{-1} = (3.5, 1.2)

R = (1.2, 4.1) R^{-1} = (4.1, 1.2)

R = (1.2, 4.2) R^{-1} = (4.2, 1.2)

R = (1.2, 4.3) R^{-1} = (4.3, 1.2)

R = (1.2, 4.4) R^{-1} = (4.4, 1.2)

R = (1.2, 4.5) R^{-1} = (4.5, 1.2)

R = (1.3, 1.3) R^{-1} = (1.3, 1.3)

R = (1.3, 1.4) R^{-1} = (1.4, 1.3)

R = (1.3, 1.5) R^{-1} = (1.5, 1.3)

R = (1.3, 2.1) R^{-1} = (2.1, 1.3)

R = (1.3, 2.2) R^{-1} = (2.2, 1.3)

R = (1.3, 2.3) R^{-1} = (2.3, 1.3)

R = (1.3, 2.4) R^{-1} = (2.4, 1.3)

R = (1.3, 2.5) R^{-1} = (2.5, 1.3)

R = (1.3, 3.1) R^{-1} = (3.1, 1.3)

R = (1.3, 3.2) R^{-1} = (3.2, 1.3)

R = (1.3, 3.3) R^{-1} = (3.3, 1.3)

R = (1.3, 3.4) R^{-1} = (3.4, 1.3)

R = (1.3, 3.5) R^{-1} = (3.5, 1.3)

R = (1.3, 4.1) R^{-1} = (4.1, 1.3)

R = (1.3, 4.2) R^{-1} = (4.2, 1.3)

R = (1.3, 4.3) R^{-1} = (4.3, 1.3)

R = (1.3, 4.4) R^{-1} = (4.4, 1.3)

R = (1.3, 4.5) R^{-1} = (4.5, 1.3)

R = (1.4, 1.4) R^{-1} = (1.4, 1.4)

R = (1.4, 1.5) R^{-1} = (1.5, 1.4)

R = (1.4, 2.1) R^{-1} = (2.1, 1.4)

R = (1.4, 2.2) R^{-1} = (2.2, 1.4)

R = (1.4, 2.3) R^{-1} = (2.3, 1.4)

R = (1.4, 2.4) R^{-1} = (2.4, 1.4)

R = (1.4, 2.5) R^{-1} = (2.5, 1.4)

R = (1.4, 3.1) R^{-1} = (3.1, 1.4)

R = (1.4, 3.2) R^{-1} = (3.2, 1.4)

R = (1.4, 3.3) R^{-1} = (3.3, 1.4)

R = (1.4, 3.4) R^{-1} = (3.4, 1.4)

R = (1.4, 3.5) R^{-1} = (3.5, 1.4)

R = (1.4, 4.1) R^{-1} = (4.1, 1.4)

R = (1.4, 4.2) R^{-1} = (4.2, 1.4)

R = (1.4, 4.3) R^{-1} = (4.3, 1.4)

R = (1.4, 4.4)   R^{-1} = (4.4, 1.4)

R = (1.4, 4.5)   R^{-1} = (4.5, 1.4)

R = (1.5, 1.5)   R^{-1} = (1.5, 1.5)

R = (1.5, 2.1)   R^{-1} = (2.1, 1.5)

R = (1.5, 2.2)   R^{-1} = (2.2, 1.5)

R = (1.5, 2.3)   R^{-1} = (2.3, 1.5)

R = (1.5, 2.4)   R^{-1} = (2.4, 1.5)

R = (1.5, 2.5)   R^{-1} = (2.5, 1.5)

R = (1.5, 3.1)   R^{-1} = (3.1, 1.5)

R = (1.5, 3.2)   R^{-1} = (3.2, 1.5)

R = (1.5, 3.3)   R^{-1} = (3.3, 1.5)

R = (1.5, 3.4)   R^{-1} = (3.4, 1.5)

R = (1.5, 3.5)   R^{-1} = (3.5, 1.5)

R = (1.5, 4.1)   R^{-1} = (4.1, 1.5)

R = (1.5, 4.2)   R^{-1} = (4.2, 1.5)

R = (1.5, 4.3)   R^{-1} = (4.3, 1.5)

R = (1.5, 4.4)   R^{-1} = (4.4, 1.5)

R = (1.5, 4.5)   R^{-1} = (4.5, 1.5)

R = (2.1, 2.1)   R^{-1} = (2.1, 2.1)

R = (2.1, 2.2)   R^{-1} = (2.2, 2.1)

R = (2.1, 2.3)   R^{-1} = (2.3, 2.1)

R = (2.1, 2.4)   R^{-1} = (2.4, 2.1)

R = (2.1, 2.5)   R^{-1} = (2.5, 2.1)

R = (2.1, 3.1)   R^{-1} = (3.1, 2.1)

R = (2.1, 3.2)   R^{-1} = (3.2, 2.1)

R = (2.1, 3.3)   R^{-1} = (3.3, 2.1)

R = (2.1, 3.4)   R^{-1} = (3.4, 2.1)

R = (2.1, 3.5) R^{-1} = (3.5, 2.1)

R = (2.1, 3.5) R^{-1} = (3.5, 2.1)

R = (2.1, 4.1) R^{-1} = (4.1, 2.1)

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R = (2.3, 2.5) R^{-1} = (2.5, 2.3)

R = (2.3, 3.1) R^{-1} = (3.1, 2.3)

R = (2.3, 3.2) R^{-1} = (3.2, 2.3)

R = (2.3, 3.3) R^{-1} = (3.3, 2.3)

R = (2.3, 3.4) R^{-1} = (3.4, 2.3)

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R = (2.4, 3.1) R^{-1} = (3.1, 2.4)

R = (2.4, 3.2) R^{-1} = (3.2, 2.4)

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R = (2.4, 3.4) R^{-1} = (3.4, 2.4)

R = (2.4, 3.5) R^{-1} = (3.5, 2.4)

R = (2.4, 4.1) R^{-1} = (4.1, 2.4)

R = (2.4, 4.2) R^{-1} = (4.2, 2.4)

R = (2.4, 4.3) R^{-1} = (4.3, 2.4)

R = (2.4, 4.4) R^{-1} = (4.4, 2.4)

R = (2.4, 4.5) R^{-1} = (4.5, 2.4)

R = (2.5, 2.5) R^{-1} = (2.5, 2.5)

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R = (2.5, 4.1) R^{-1} = (4.1, 2.5)

R = (2.5, 4.2) R^{-1} = (4.2, 2.5)

R = (2.5, 4.3) R^{-1} = (4.3, 2.5)

R = (2.5, 4.4) R^{-1} = (4.4, 2.5)

R = (2.5, 4.5) R^{-1} = (4.5, 2.5)

R = (3.1, 3.1) R^{-1} = (3.1, 3.1)

R = (3.1, 3.2) R^{-1} = (3.2, 3.1)

R = (3.1, 3.3) R^{-1} = (3.3, 3.1)

R = (3.1, 3.4) R^{-1} = (3.4, 3.1)

R = (3.1, 3.5) R^{-1} = (3.5, 3.1)

R = (3.1, 4.1) R^{-1} = (4.1, 3.1)

R = (3.1, 4.2) R^{-1} = (4.2, 3.1)

R = (3.1, 4.3) R^{-1} = (4.3, 3.1)

R = (3.1, 4.4) R^{-1} = (4.4, 3.1)

R = (3.1, 4.5) R^{-1} = (4.5, 3.1)

R = (3.2, 3.2) R^{-1} = (3.2, 3.2)

R = (3.2, 3.3) R^{-1} = (3.3, 3.2)

R = (3.2, 3.4) R^{-1} = (3.4, 3.2)

R = (3.2, 3.5) R^{-1} = (3.5, 3.2)

R = (3.2, 4.1) R^{-1} = (4.1, 3.2)

R = (3.2, 4.2) R^{-1} = (4.2, 3.2)

R = (3.2, 4.3) R^{-1} = (4.3, 3.2)

R = (3.2, 4.4) R^{-1} = (4.4, 3.2)

R = (3.2, 4.5) R^{-1} = (4.5, 3.2)

R = (3.3, 3.3) R^{-1} = (3.3, 3.3)

R = (3.3, 3.4) R^{-1} = (3.4, 3.3)

R = (3.3, 3.5) R^{-1} = (3.5, 3.3)

R = (3.3, 4.1) R^{-1} = (4.1, 3.3)

R = (3.3, 4.2) R^{-1} = (4.2, 3.3)

R = (3.3, 4.3)   R⁻¹ = (4.3, 3.3)

R = (3.3, 4.4)   R⁻¹ = (4.4, 3.3)

R = (3.3, 4.5)   R⁻¹ = (4.5, 3.3)

R = (3.4, 3.4)   R⁻¹ = (3.4, 3.4)

R = (3.4, 3.5)   R⁻¹ = (3.5, 3.4)

R = (3.4, 4.1)   R⁻¹ = (4.1, 3.4)

R = (3.4, 4.2)   R⁻¹ = (4.2, 3.4)

R = (3.4, 4.3)   R⁻¹ = (4.3, 3.4)

R = (3.4, 4.4)   R⁻¹ = (4.4, 3.4)

R = (3.4, 4.5)   R⁻¹ = (4.5, 3.4)

R = (3.5, 3.5)   R⁻¹ = (3.5, 3.5)

R = (3.5, 4.1)   R⁻¹ = (4.1, 3.5)

R = (3.5, 4.2)   R⁻¹ = (4.2, 3.5)

R = (3.5, 4.3)   R⁻¹ = (4.3, 3.5)

R = (3.5, 4.4)   R⁻¹ = (4.4, 3.5)

R = (3.5, 4.5)   R⁻¹ = (4.5, 3.5)

R = (4.1, 4.1)   R⁻¹ = (4.1, 4.1)

R = (4.1, 4.2)   R⁻¹ = (4.2, 4.1)

R = (4.1, 4.3)   R⁻¹ = (4.3, 4.1)

R = (4.1, 4.4)   R⁻¹ = (4.4, 4.1)

R = (4.1, 4.5)   R⁻¹ = (4.5, 4.1)

2.20. Zeichen nach der Qualität des Zeichens, zum Objekt, zum Ich-, Du- und Er-Subjekt

$$\begin{vmatrix} 1.1 & 1.2 & 1.3 & 1.4 & 1.5 \\ 2.1 & 2.2 & 2.3 & 2.4 & 2.5 \\ 3.1 & 3.2 & 3.3 & 3.4 & 3.5 \\ 4.1 & 4.2 & 4.3 & 4.4 & 4.5 \\ 5.1 & 5.2 & 5.3 & 5.4 & 5.5 \end{vmatrix}$$

R = (1.1, 1.1)   R^{-1} = (1.1, 1.1)

R = (1.1, 1.2)   R^{-1} = (1.2, 1.1)

R = (1.1, 1.3)   R^{-1} = (1.3, 1.1)

R = (1.1, 1.4)   R^{-1} = (1.4, 1.1)

R = (1.1, 1.5)   R^{-1} = (1.5, 1.1)

R = (1.1, 2.1)   R^{-1} = (2.1, 1.1)

R = (1.1, 2.2)   R^{-1} = (2.2, 1.1)

R = (1.1, 2.3)   R^{-1} = (2.3, 1.1)

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