

Trajektionen innerhalb der semiotischen Basisrelationen

1. In Toth (2025) hatten wir im Rahmen einer neuen, trajektischen, Semiotik die Basisrelationen bestimmt. Jede Basisrelation besitzt vier Varianten: neben dem Basistrajekt $T(Z)$ die Konversion (K), die Dualisation (D) und die konverse Dualisation bzw. duale Konversion $K(D) / D(K)$). Für alle diese vier Relationen der sechs Basisrelationen bestimmen wir nun die Trajekte.

2. Trajekte von Trajekten der semiotischen Basisrelationen

1. Trajektische Basisrelation

$$T(Z) = (1.2 \mid 2.3)$$

$$K(T(Z)) = (2.3 \mid 1.2)$$

$$D(T(Z)) = (3.2 \mid 2.1)$$

$$K(D(T(Z))) = (2.1 \mid 3.2)$$

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$$((1.2 \mid 2.3), (2.3 \mid 1.2)) = (1.2, 2.3 \mid 2.1, 3.2)$$

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$$((1.2 \mid 2.3), (3.2 \mid 2.1)) = (1.3, 2.2 \mid 2.2, 3.1)$$

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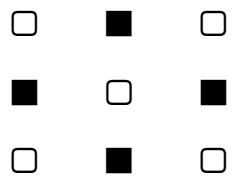
$$((1.2 \mid 2.3), (2.1 \mid 3.2)) = (1.2, 2.1 \mid 2.3, 3.2)$$

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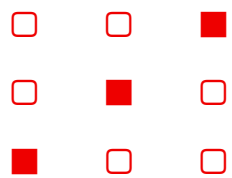
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$$\begin{array}{ccc} \square & \blacksquare & \square \end{array}$$

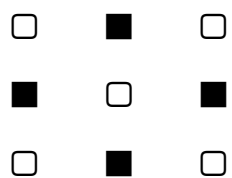
$$((2.3 \mid 1.2), (3.2 \mid 2.1)) = (2.3, 3.2 \mid 1.2, 2.1)$$



$$((2.3 \mid 1.2), (2.1 \mid 3.2)) = (2.2, 3.1 \mid 1.3, 2.2)$$



$$((3.2 \mid 2.1), (2.1 \mid 3.2)) = (3.2, 2.1 \mid 2.3, 1.2)$$



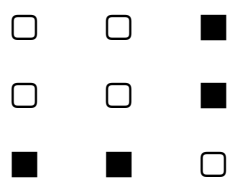
2. Trajektische Basisrelation

$$T(Z) = (1.3 \mid 3.2)$$

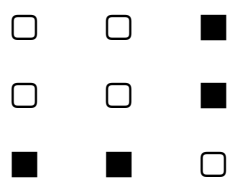
$$K(T(Z)) = (3.2 \mid 1.3)$$

$$D(T(Z)) = (2.3 \mid 3.1)$$

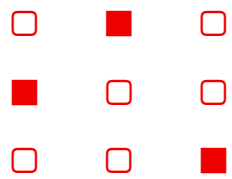
$$K(D(T(Z))) = (3.1 \mid 2.3)$$



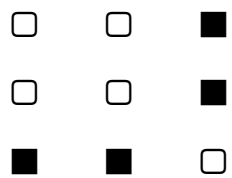
$$((1.3 \mid 3.2), (3.2 \mid 1.3)) = (1.3, 3.2 \mid 3.1, 2.3)$$



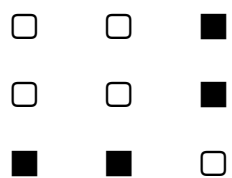
$$((1.3 \mid 3.2), (2.3 \mid 3.1)) = (1.2, 3.3 \mid 3.3, 2.1)$$



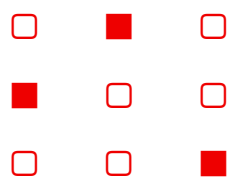
$$((1.3 \mid 3.2), (3.1 \mid 2.3)) = (1.3, 3.1 \mid 3.2, 2.3)$$



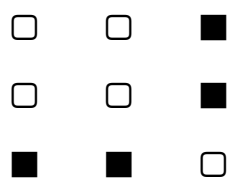
$$((3.2 \mid 1.3), (2.3 \mid 3.1)) = (3.2, 2.3 \mid 1.3, 3.1)$$



$$((3.2 \mid 1.3), (3.1 \mid 2.3)) = (3.3, 2.1 \mid 1.2, 3.3)$$



$$((2.3 \mid 3.1), (3.1 \mid 2.3)) = (2.3, 3.1 \mid 3.2, 1.3)$$



3. Trajektische Basisrelation

$$T(Z) = (2.1 \mid 1.3)$$

$$K(T(Z)) = (1.3 \mid 2.1)$$

$$D(T(Z)) = (3.1 \mid 1.2)$$

$$K(D(T(Z))) = (1.2 \mid 3.1)$$

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$$((2.1 \mid 1.3), (1.3 \mid 2.1)) = (2.1, 1.3 \mid 1.2, 3.1)$$

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$$((2.1 \mid 1.3), (3.1 \mid 1.2)) = (2.3, 1.1 \mid 1.1, 3.2)$$

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$$((2.1 \mid 1.3), (1.2 \mid 3.1)) = (2.1, 1.2 \mid 1.3, 3.1)$$

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$$((1.3 \mid 2.1), (3.1 \mid 1.2)) = (1.3, 3.1 \mid 2.1, 1.2)$$

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$$((1.3 \mid 2.1), (1.2 \mid 3.1)) = (1.1, 3.2 \mid 2.3, 1.1)$$

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$$((3.1 \mid 1.2), (1.2 \mid 3.1)) = (3.1, 1.2 \mid 1.3, 2.1)$$

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4. Trajektische Basisrelation

$$T(Z) = (2.3 \mid 3.1)$$

$$K(T(Z)) = (3.1 \mid 2.3)$$

$$D(T(Z)) = (1.3 \mid 3.2)$$

$$K(D(T(Z))) = (3.2 \mid 1.3)$$

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$$((2.3 \mid 3.1), (3.1 \mid 2.3)) = (2.3, 3.1 \mid 3.2, 1.3)$$

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$$((2.3 \mid 3.1), (1.3 \mid 3.2)) = (2.1, 3.3 \mid 3.3, 1.2)$$

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$$((2.3 \mid 3.1), (3.2 \mid 1.3)) = (2.3, 3.2 \mid 3.1, 1.3)$$

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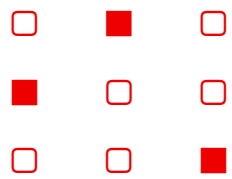
$$((3.1 \mid 2.3), (1.3 \mid 3.2)) = (3.1, 1.3 \mid 2.3, 3.2)$$

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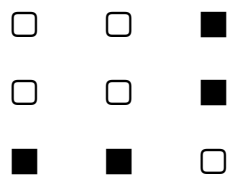
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$$((3.1 \mid 2.3), (3.2 \mid 1.3)) = (3.3, 1.2 \mid 2.1, 3.3)$$



$$((1.3 \mid 3.2), (3.2 \mid 1.3)) = (1.3, 3.2 \mid 3.1, 2.3)$$



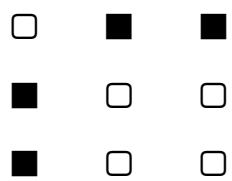
5. Trajektische Basisrelation

$$T(Z) = (3.1 \mid 1.2)$$

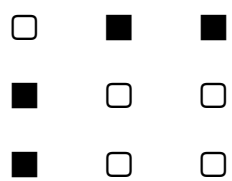
$$K(T(Z)) = (1.2 \mid 3.1)$$

$$D(T(Z)) = (2.1 \mid 1.3)$$

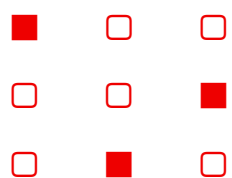
$$K(D(T(Z))) = (1.3 \mid 2.1)$$



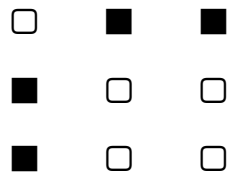
$$((3.1 \mid 1.2), (1.2 \mid 3.1)) = (3.1, 1.2 \mid 1.3, 2.1)$$



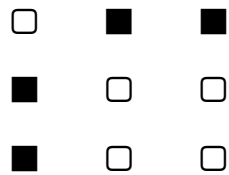
$$((3.1 \mid 1.2), (2.1 \mid 1.3)) = (3.2, 1.1 \mid 1.1, 2.3)$$



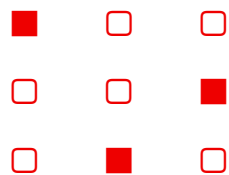
$$((3.1 \mid 1.2), (1.3 \mid 2.1)) = (3.1, 1.3 \mid 1.2, 2.1)$$



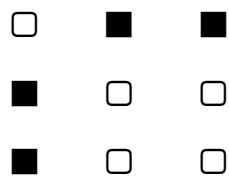
$$((1.2 \mid 3.1), (2.1 \mid 1.3)) = (1.2, 2.1 \mid 3.1, 1.3)$$



$$((1.2 \mid 3.1), (1.3 \mid 2.1)) = (1.1, 2.3 \mid 3.2, 1.1)$$



$$((2.1 \mid 1.3), (1.3 \mid 2.1)) = (2.1, 1.3 \mid 1.2, 3.1)$$



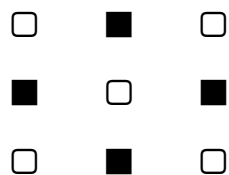
6. Trajektische Basisrelation

$$T(Z) = (3.2 \mid 2.1)$$

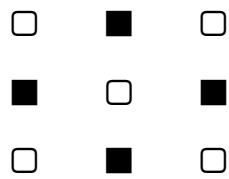
$$K(T(Z)) = (2.1 \mid 3.2)$$

$$D(T(Z)) = (1.2 \mid 2.3)$$

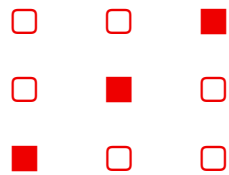
$$K(D(T(Z))) = (2.3 \mid 1.2)$$



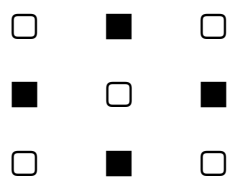
$$((3.2 \mid 2.1), (2.1 \mid 3.2)) = (3.2, 2.1 \mid 2.3, 1.2)$$



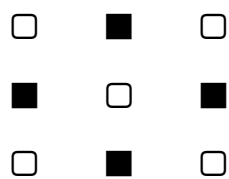
$$((3.2 \mid 2.1), (1.2 \mid 2.3)) = (3.1, 2.2 \mid 2.2, 1.3)$$



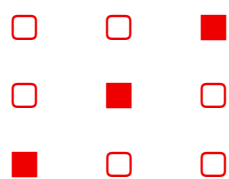
$$((3.2 \mid 2.1), (2.3 \mid 1.2)) = (3.2, 2.3 \mid 2.1, 1.2)$$



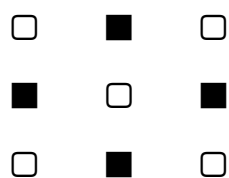
$$((2.1 \mid 3.2), (1.2 \mid 2.3)) = (2.1, 1.2 \mid 3.2, 2.3)$$



$$((2.1 \mid 3.2), (2.3 \mid 1.2)) = (2.2, 1.3 \mid 3.1, 2.2)$$



$$((1.2 \mid 2.3), (2.3 \mid 1.2)) = (1.2, 2.3 \mid 2.1, 3.2)$$



Die rot eingezeichneten Vermittlungen innerhalb der Teilsysteme der Trajekte sind also

$$V_1 = (2.2, 3.1 \mid 1.3, 2.2) \rightarrow \text{ZKl} = (3.1, 2.2, 1.3)$$

$$V_2 = (1.2, 3.3 \mid 3.3, 2.1) \rightarrow \text{ZKl} = (3.3, 2.1, 1.2)$$

$$V_3 = (2.3, 1.1 \mid 1.1, 3.2) \rightarrow \text{ZKl} = (3.2, 2.3, 1.1)$$

$$V_4 = (3.3, 1.2 \mid 2.1, 3.3) \rightarrow \text{ZKl} = (3.3, 2.1, 1.2)$$

$$V_5 = (1.1, 2.3 \mid 3.2, 1.1) \rightarrow \text{ZKl} = (3.2, 2.3, 1.1)$$

$$V_6 = (2.2, 1.3 \mid 3.1, 2.2) \rightarrow \text{ZKl} = (3.1, 2.2, 1.3)$$

D.h. die Vermittlung innerhalb der trajektischen semiotischen Basisrelationen wird von nur drei eigenrealen Zeichenklassen bewerkstelligt. Von ihnen gehört nur (3.1, 2.2, 1.3) dem semiotischen 10er-System an, die beiden anderen dem semiotischen 27er-System bzw. den 17 Differenzmengen:

(3.1, 2.2, 1.3)

(3.2, 2.3, 1.1)

(3.3, 2.1, 1.2).

Literatur

Toth, Alfred, Grundlagen einer trajektischen Semiotik. In: Electronic Journal for Mathematical Semiotics, 2025

17.12.2025