

Trajektische Systemkonversion

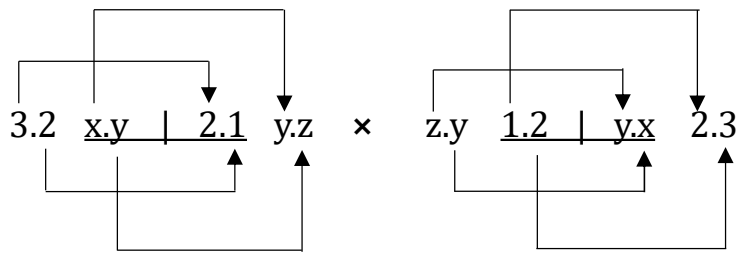
1. Wir gehen aus von der allgemeinen Form eines ternären semiotischen Dualsystems

$$DS: ZKl = (3.x, 2.y, 1.z) \times RTh = (z.1, y.2, x.3)$$

und bilden die Trajektion. Zusätzlich geben wir die systemischen Funktionen der trajektischen Teilrelationen an (vgl. Toth 2026).

$$\begin{array}{ccccccc} 3.2 & \underline{x.y} & | & \underline{2.1} & y.z & \times & z.y & \underline{1.2} & | & \underline{y.x} & 2.3 \\ U^{lo} & Sys^{lo} & & Sys^{ro} & U^{ro} & \times & U^{lo} & Sys^{lo} & & Sys^{ro} & U^{ro} \end{array}$$

Wenn wir nun zusätzlich über den trajektischen Rand hinaus Trajektionen der systemischen Teilrelationen nach dem folgenden Schema bilden



erhalten wir neue Dualsysteme, deren Systemrelation sich chiastisch zu derjenigen der Ausgangsrelation verhält.

$$\begin{array}{ccccccc} 3.2 & \underline{x.y} & | & \underline{2.1} & y.z & \times & z.y & \underline{1.2} & | & \underline{y.x} & 2.3 \\ & \diagdown & & \diagup & & & \diagdown & & \diagup & & \\ 3.2 & \underline{2.1} & | & \underline{x.y} & y.z & \times & z.y & \underline{y.x} & | & \underline{1.2} & 2.3, \end{array}$$

d.h. diese zweite, externe (den trajektischen Rand überschreitende), Trajektion bewirkt die folgende Transformation

$$\tau: Sys^{lo} \rightleftharpoons Sys^{ro}.$$

2. Im folgenden bilden wir trajektische Systemkonversionen für alle $3^3 = 27$ Relationen des vollständigen ternären semiotischen Systems.

$$\begin{array}{ccccccc} 3.2 & \underline{1.1} & | & \underline{2.1} & 1.1 & \times & 1.1 & \underline{1.2} & | & \underline{1.1} & 2.3 \\ & \diagdown & & \diagup & & & \diagdown & & \diagup & & \\ 3.2 & \underline{2.1} & | & \underline{1.1} & 1.1 & \times & 1.1 & \underline{1.1} & | & \underline{1.2} & 2.3 \\ U^{lo} & Sys^{lo} & & Sys^{ro} & U^{ro} & \times & U^{lo} & Sys^{lo} & & Sys^{ro} & U^{ro} \end{array}$$

Diagram illustrating the structure of the system, showing two sets of nodes and their connections. The nodes are arranged in a grid-like fashion, with labels U^{lo} , Sys^{lo} , Sys^{ro} , U^{ro} , and $\times$ below them.

The diagram illustrates two sets of nodes and edges. The left set consists of nodes 3.2, 1.1, 2.1, 1.3, 2.2, 3.1, 1.2, and 2.3. The right set consists of nodes 3.2, 2.1, 1.1, 1.3, 2.2, 3.1, 1.1, 1.2, and 2.3. Edges connect nodes between the two sets, forming a complex network.

$$\begin{array}{ccccc}
3.2 & \underline{1.2} & | & \underline{2.1} & 2.1 \times 1.2 \\
& \diagdown & & \diagup & \\
& & & & \\
& \diagup & & \diagdown & \\
3.2 & \underline{2.1} & | & \underline{1.2} & 2.1 \times 1.2 \\
U^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & U^{\text{ro}}
\end{array}
\quad
\begin{array}{ccccc}
2.3 & \underline{1.2} & | & \underline{2.1} & 1.2 \\
& \diagdown & & \diagup & \\
& & & & \\
& \diagup & & \diagdown & \\
1.2 & \underline{2.1} & | & \underline{1.2} & 2.3 \\
U^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & U^{\text{ro}}
\end{array}$$

Diagram illustrating the multiplication of two numbers, showing the result and the intermediate steps (crossed out).

Left side: $3.2 \times 2.2 = 7.04$. The intermediate steps 1.2 and 2.1 are crossed out.

Right side: $2.2 \times 2.3 = 5.06$. The intermediate steps 2.1 and 1.2 are crossed out.

Labels below the operations: U^{lo} , Sys^{lo} , Sys^{ro} , U^{ro} .

$$\begin{array}{ccccc}
 3.2 & \underline{1.2} & | & \underline{2.1} & 2.3 \\
 & \diagdown & & \diagup & \\
 3.2 & \underline{2.1} & | & \underline{1.2} & 2.3 \\
 \text{U}^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & \text{U}^{\text{ro}}
 \end{array}$$

$$\begin{array}{ccccc}
 3.2 & \underline{1.2} & | & \underline{2.1} & 2.3 \\
 & \diagdown & & \diagup & \\
 3.2 & \underline{2.1} & | & \underline{1.2} & 2.3 \\
 \text{U}^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & \text{U}^{\text{ro}}
 \end{array}$$

Diagram illustrating the mapping of variables between two sets of equations. The top row shows the mapping of variables from the left set to the right set. The bottom row shows the mapping of variables from the right set to the left set.

Left set of equations:

$$\begin{array}{ccccc} 3.2 & \underline{2.1} & | & \underline{2.1} & 1.3 \times \\ & \diagdown & & \diagup & \\ 3.2 & \underline{2.1} & | & \underline{2.1} & 1.3 \times \\ U^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & U^{\text{ro}} \end{array}$$

Right set of equations:

$$\begin{array}{ccccc} 3.1 & \underline{1.2} & | & \underline{1.2} & 2.3 \\ & \diagdown & & \diagup & \\ 3.1 & \underline{1.2} & | & \underline{1.2} & 2.3 \\ U^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & U^{\text{ro}} \end{array}$$

Diagram illustrating the mapping of variables between two sets of mappings:

Left set of mappings:

- 3.2 maps to 2.1
- 2.2 maps to 2.1
- 2.1 maps to 2.1
- 1.2 maps to 2.2
- 2.2 maps to 2.2
- 2.3 maps to 2.3

Right set of mappings:

- 3.2 maps to 2.2
- 2.2 maps to 2.2
- 2.1 maps to 2.2
- 1.2 maps to 2.1
- 2.2 maps to 2.1
- 2.3 maps to 2.3

Diagram illustrating the mapping of variables between two sets of equations. The variables are arranged in two rows, with the top row representing the source variables and the bottom row representing the target variables. The mappings are indicated by lines connecting the variables.

Top row (Source): 3.2 , $\underline{2.2}$, $\mid$, $\underline{2.1}$, 2.2 , $\times$, 2.2 , $\underline{1.2}$, $\mid$, $\underline{2.2}$, 2.3

Bottom row (Target): 3.2 , $\underline{2.1}$, $\mid$, $\underline{2.2}$, 2.2 , $\times$, 2.2 , $\underline{2.2}$, $\mid$, $\underline{1.2}$, 2.3

Legend (Bottom): U^{lo} , Sys^{lo} , Sys^{ro} , U^{ro} , $\times$, U^{lo} , Sys^{lo} , Sys^{ro} , U^{ro}

Diagram illustrating the mapping of variables between two sets of equations:

Left set of equations:

$$\begin{array}{ccccc} 3.2 & \underline{2.2} & | & \underline{2.1} & 2.3 & \times \\ & \swarrow & & \searrow & \\ 3.2 & \underline{2.1} & | & \underline{2.2} & 2.3 & \times \\ U^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & U^{\text{ro}} & \times \end{array}$$

Right set of equations:

$$\begin{array}{ccccc} 3.2 & \underline{1.2} & | & \underline{2.2} & 2.3 \\ & \swarrow & & \searrow & \\ 3.2 & \underline{2.2} & | & \underline{1.2} & 2.3 \\ U^{\text{lo}} & \text{Sys}^{\text{lo}} & & \text{Sys}^{\text{ro}} & U^{\text{ro}} & \times \end{array}$$

$$\begin{array}{ccccccc}
 3.2 & \underline{3.3} & | & \underline{2.1} & 3.3 & \times & 3.3 & \underline{1.2} & | & \underline{3.3} & 2.3 \\
 & \diagdown & & \diagup & & & & \diagdown & & \diagup & \\
 3.2 & \underline{2.1} & | & \underline{3.3} & 3.3 & \times & 3.3 & \underline{3.3} & | & \underline{1.2} & 2.3 \\
 U^{lo} & Sys^{lo} & & Sys^{ro} & U^{ro} & \times & U^{lo} & Sys^{lo} & & Sys^{ro} & U^{ro}
 \end{array}$$

Literatur

Toth, Alfred, Systeme und Umgebungen semiotischer Dualsysteme. In:
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16.1.2026