

Das 2-stufig trajektische System der zehn semiotischen Dualsysteme

1. Im folgenden untersuchen wir vor dem Hintergrund des jüngsten Standes der Erforschung algebraischer Trajekte (vgl. zuletzt Toth 2025a-c) die zehn peirce-benseschen Zeichenklassen und Realitätsthematiken. Dabei werden die Dualsysteme 1. und 2. Stufe einander gegenübergestellt.

2. Trajektische Dualsysteme

1. Dualsystem

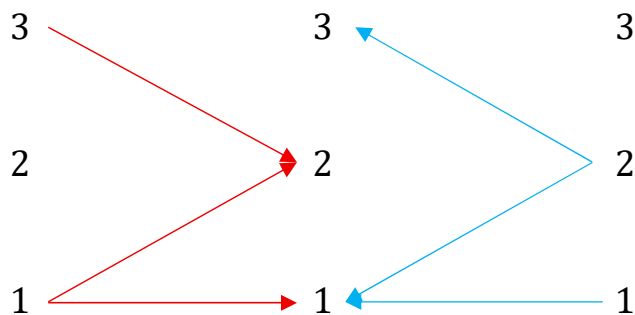
3.1 2.1 1.1 × 1.1 1.2 1.3

3.1 2.1 1.1 1.2

2.1 1.1 1.2 1.3

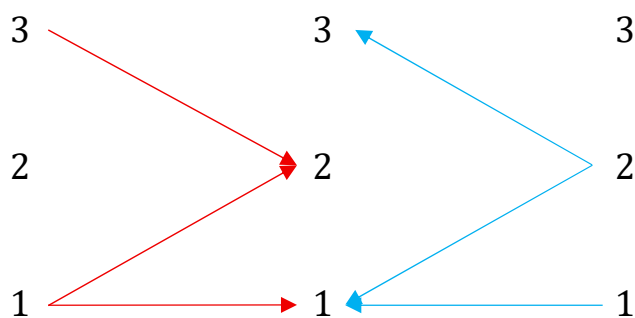
= (3.2, 1.1) | (2.1, 1.1)

= (1.1, 1.2) | (1.1, 2.3)



= (3.2, 1.2, 1.1, 1.1)

= (1.1, 1.1, 2.1, 2.3)



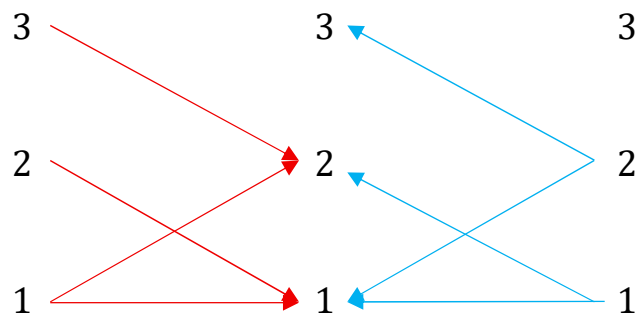
2. Dualsystem

3.1 2.1 1.2 × 2.1 1.2 1.3

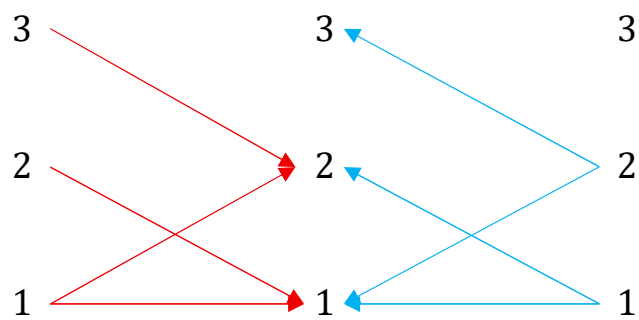
3.1 2.1 2.1 1.2

2.1 1.2 1.2 1.3

= (3.2, 1.1) | (2.1, 1.2) = (2.1, 1.2) | (1.1, 2.3)



= (3.2, 1.2, 1.1, 1.2) = (2.1, 1.1, 2.1, 2.3)



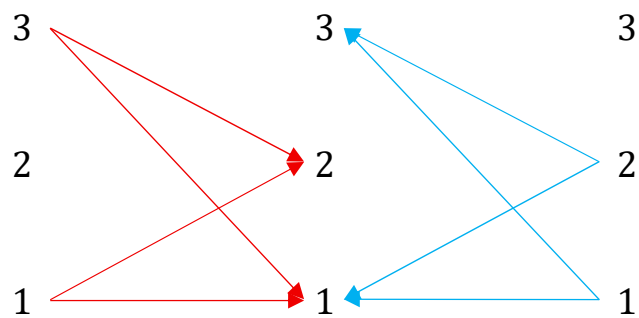
3. Dualsystem

3.1 2.1 1.3 × 3.1 1.2 1.3

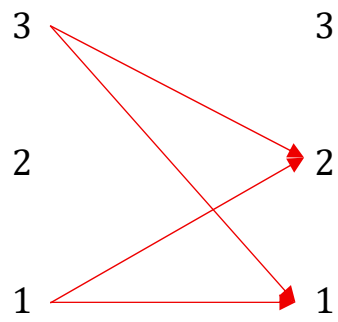
3.1 2.1 3.1 1.2

2.1 1.3 1.2 1.3

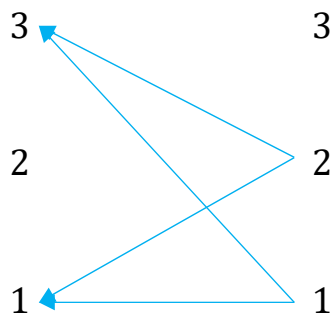
= (3.2, 1.1) | (2.1, 1.3) = (3.1, 1.2) | (1.1, 2.3)



$$= (3.2, 1.2, 1.1, 1.3)$$



$$= (3.1, 1.1, 2.1, 2.3)$$



4. Dualsystem

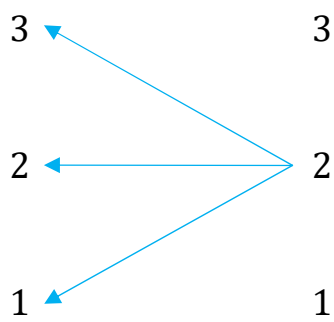
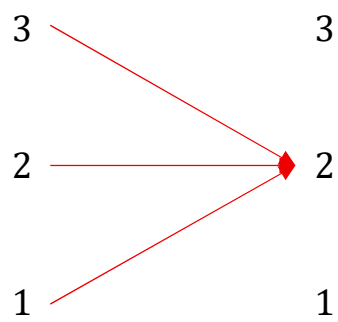
$$3.1 \quad 2.2 \quad 1.2 \quad \times \quad 2.1 \quad 2.2 \quad 1.3$$

$$3.1 \quad 2.2 \quad \quad \quad 2.1 \quad 2.2$$

$$2.2 \quad 1.2 \quad \quad \quad 2.2 \quad 1.3$$

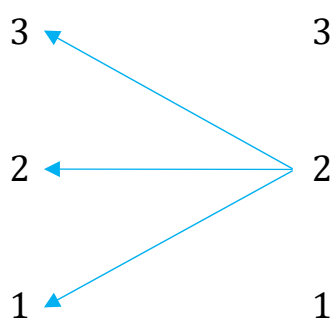
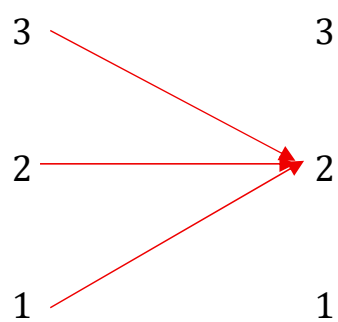
$$= (3.2, 1.2) \mid (2.1, 2.2)$$

$$= (2.2, 1.2) \mid (2.1, 2.3)$$



$$= (3.2, 1.2, 2.1, 2.2)$$

$$= (2.2, 1.2, 2.1, 2.3)$$



5. Dualsystem

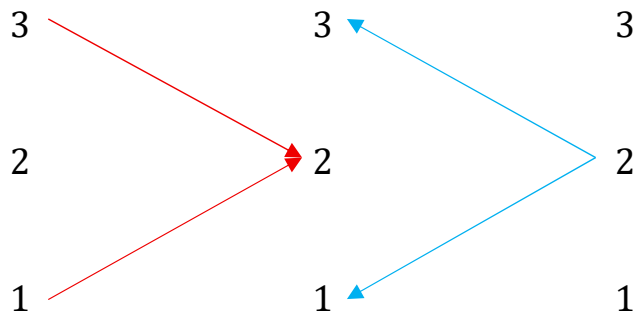
3.1 2.2 1.3 × 3.1 2.2 1.3

3.1 2.2 3.1 2.2

2.2 1.3 2.2 1.3

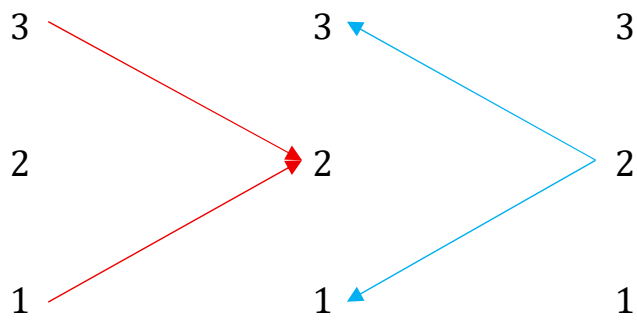
= (3.2, 1.2) | (2.1, 2.3)

= (3.2, 1.2) | (2.1, 2.3)



= (3.2, 1.2, 2.1, 2.3)

= (3.2, 1.2, 2.1, 2.3)



6. Dualsystem

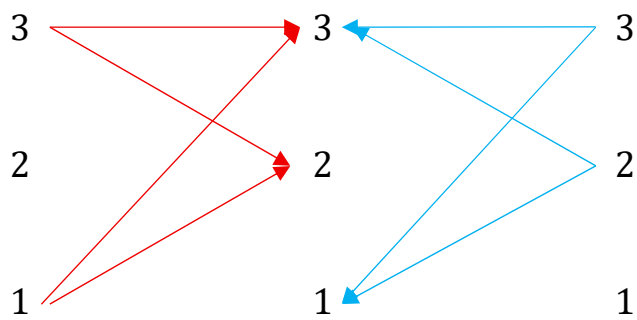
3.1 2.3 1.3 × 3.1 3.2 1.3

3.1 2.3 3.1 3.2

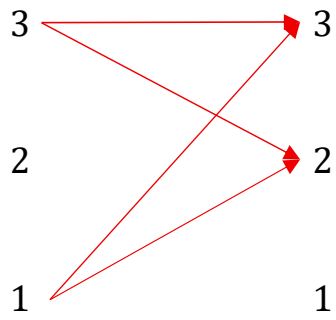
2.3 1.3 3.2 1.3

= (3.2, 1.3) | (2.1, 3.3)

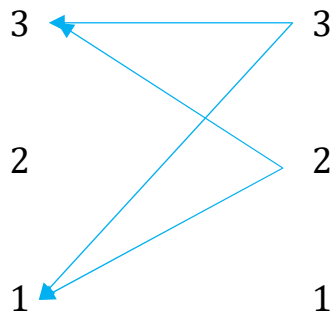
= (3.3, 1.2) | (3.1, 2.3)



$$= (3.2, 1.2, 3.1, 3.3)$$



$$= (3.3, 1.3, 2.1, 2.3)$$



7. Dualsystem

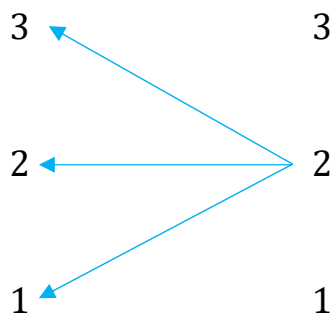
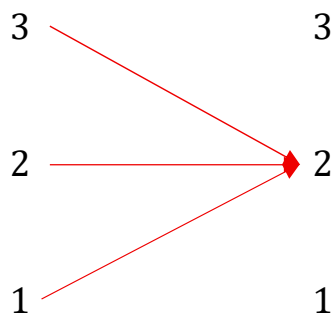
$$3.2 \quad 2.2 \quad 1.2 \quad \times \quad 2.1 \quad 2.2 \quad 2.3$$

$$3.2 \quad 2.2 \quad \quad \quad 2.1 \quad 2.2$$

$$2.2 \quad 1.2 \quad \quad \quad 2.2 \quad 2.3$$

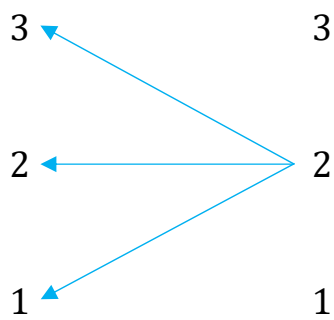
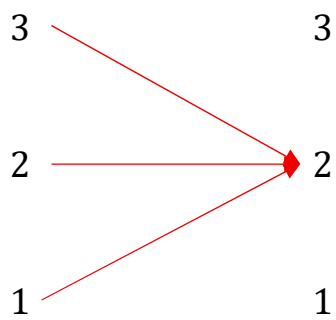
$$= (3.2, 2.2) \mid (2.1, 2.2)$$

$$= (2.2, 1.2) \mid (2.2, 2.3)$$



$$= (3.2, 2.2, 2.1, 2.2)$$

$$= (2.2, 1.2, 2.2, 2.3)$$



8. Dualsystem

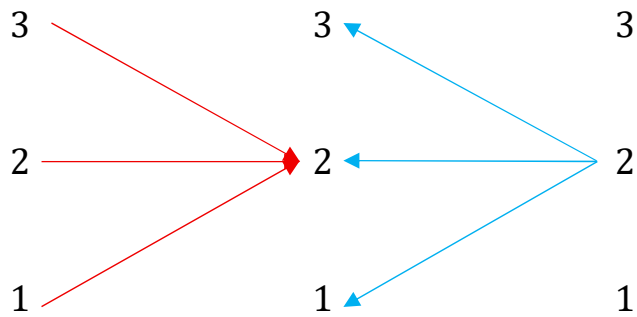
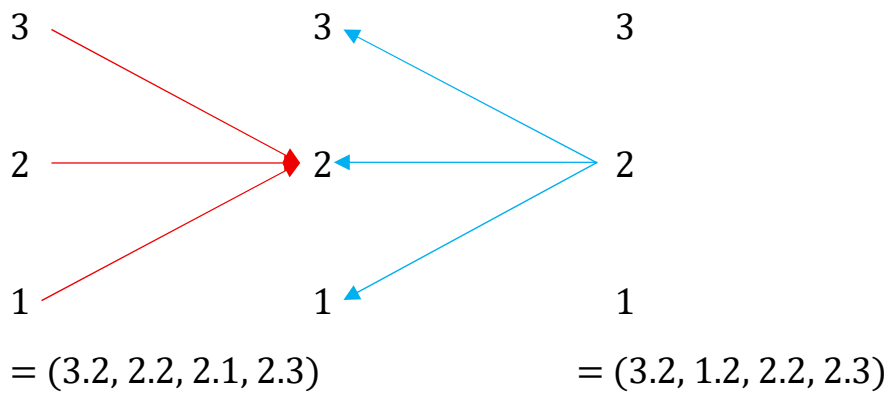
$$3.2 \quad 2.2 \quad 1.3 \quad \times \quad 3.1 \quad 2.2 \quad 2.3$$

$$3.2 \quad 2.2 \quad \quad \quad 3.1 \quad 2.2$$

$$2.2 \quad 1.3 \quad \quad \quad 2.2 \quad 2.3$$

$$= (3.2, 2.2) \mid (2.1, 2.3)$$

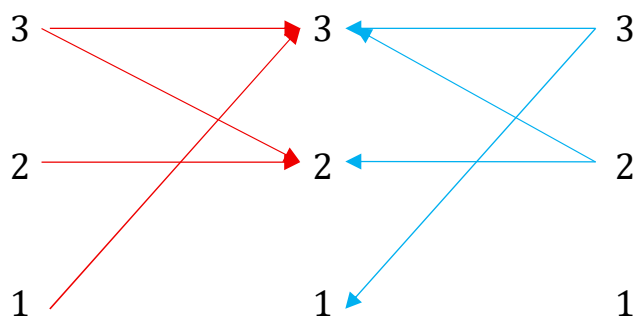
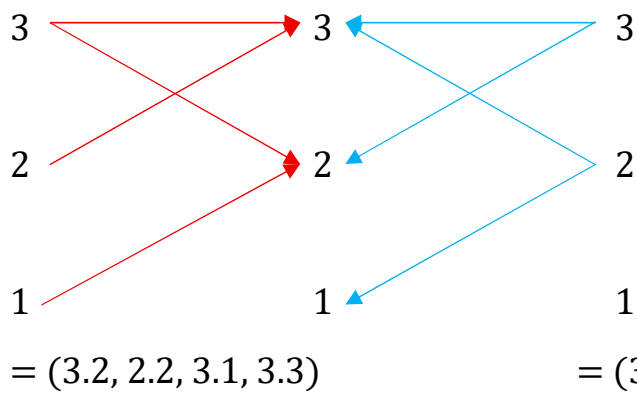
$$= (3.2, 1.2) \mid (2.2, 2.3)$$



9. Dualsystem

3.2	2.3	1.3	×	3.1	3.2	2.3
3.2	2.3			3.1	3.2	
2.3	1.3			3.2	2.3	

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



10. Dualsystem

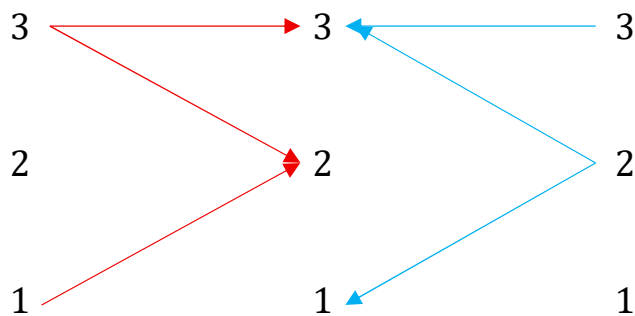
3.3 2.3 1.3 × 3.1 3.2 3.3

3.3 2.3 3.1 3.2

2.3 1.3 3.2 3.3

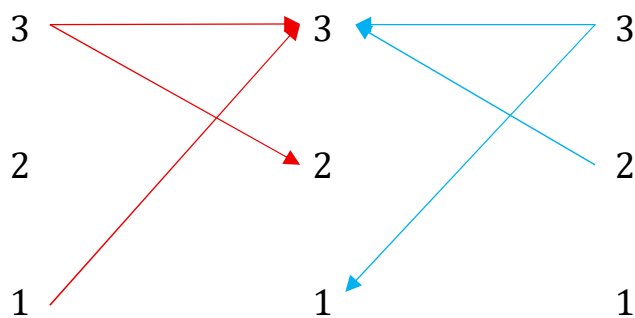
= (3.2, 3.3) | (2.1, 3.3)

= (3.3, 1.2) | (3.3, 2.3)



= (3.2, 3.2, 3.1, 3.3)

= (3.3, 1.3, 2.3, 2.3)



Die heteromorphismischen Trajekte verhalten sich dual zu den morphismischen, d.h. genauso wie die Realitätsthematiken zu den Zeichenklassen. Die große Überraschung besteht darin, daß die Trajekte 1. und 2. Stufe beim 9. und 10. Dualsystem nicht koinzidieren. Merkwürdig ist ferner, daß die trajektischen Funktionsgraphen des 4., 7. und 8. Dualsystems als Teilgraphen den Funktiongraph der eigenrealen Zeichenklasse enthalten.

Literatur

Toth, Alfred, Semiotische Dualsysteme, Diamonds und Trajekte. In: Electronic Journal for Mathematical Semiotics, 2025a

Toth, Alfred, Diamonds, Trajekte 1. und 2. Stufe. In: Electronic Journal for Mathematical Semiotics, 2025b

Toth, Alfred, Gleichheit von Trajekten 1. und 2. Stufe bei ontischem Hyperbaton. In: Electronic Journal for Mathematical Semiotics, 2025c

1.9.2025