

Prof. Dr. Alfred Toth

Homonyme und nicht-homonyme Grenzränder semiotischer Dualsysteme

1. Vgl. zu den Voraussetzungen Toth (2013a-c).

2. Reguläre semiotische Dualsysteme

2.1. $(3.1, 2.1, 1.1) \times (1.1, 1.2, 1.3)$

Grenzränder:

$$G((3.1, 2.1, 1.1), (1.1, 1.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.1, 1.1) = \emptyset$$

$$G((3.1, 2.1, 1.1), (1.1, 1.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.1, 1.1) = (1.2, 1.3)$$

$$G((3.1, 2.1, 1.1), (1.1, 1.2, 1.3)) \cap \mathcal{R}_\lambda(1.1, 1.2, 1.3) = \emptyset$$

$$G((3.1, 2.1, 1.1), (1.1, 1.2, 1.3)) \cap \mathcal{R}_\rho(1.1, 1.2, 1.3) = (2.1, 3.1).$$

2.2. $(3.1, 2.2, 1.2) \times (2.1, 2.2, 1.3)$

Grenzränder:

$$G((3.1, 2.2, 1.2), (2.1, 2.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.2, 1.2) = (2.1)$$

$$G((3.1, 2.2, 1.2), (2.1, 2.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.2, 1.2) = (1.3)$$

$$G((3.1, 2.2, 1.2), (2.1, 2.2, 1.3)) \cap \mathcal{R}_\lambda(2.1, 2.2, 1.3) = (1.2)$$

$$G((3.1, 2.2, 1.2), (2.1, 2.2, 1.3)) \cap \mathcal{R}_\rho(2.1, 2.2, 1.3) = (3.1).$$

2.3. $(3.1, 2.1, 1.2) \times (2.1, 1.2, 1.3)$

Grenzränder:

$$G((3.1, 2.1, 1.2), (2.1, 1.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.1, 1.2) = \emptyset$$

$$G((3.1, 2.1, 1.2), (2.1, 1.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.1, 1.2) = (1.3)$$

$$G((3.1, 2.1, 1.2), (2.1, 1.2, 1.3)) \cap \mathcal{R}_\lambda(2.1, 1.2, 1.3) = \emptyset$$

$$G((3.1, 2.1, 1.2), (2.1, 1.2, 1.3)) \cap \mathcal{R}_\rho(2.1, 1.2, 1.3) = (3.1).$$

2.4. $(3.2, 2.3, 1.3) \times (3.1, 3.2, 2.3)$

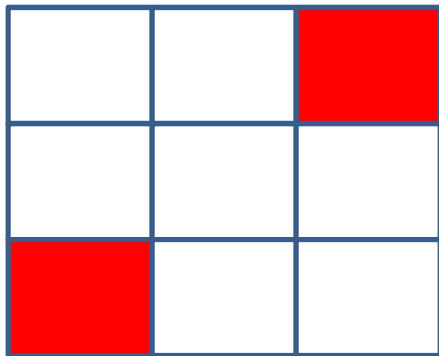
Grenzränder:

$$G((3.2, 2.3, 1.3), (3.1, 3.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.3, 1.3) = (3.1)$$

$$G((3.2, 2.3, 1.3), (3.1, 3.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.3, 1.3) = \emptyset$$

$$G((3.2, 2.3, 1.3), (3.1, 3.2, 2.3)) \cap \mathcal{R}_\lambda(3.1, 3.2, 2.3) = (1.3)$$

$$G((3.2, 2.3, 1.3), (3.1, 3.2, 2.3)) \cap \mathcal{R}_\rho(3.1, 3.2, 2.3) = \emptyset.$$



2.5. $(3.1, 2.1, 1.3) \times (3.1, 1.2, 1.3)$

Grenzränder:

$$G((3.1, 2.1, 1.3), (3.1, 1.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.1, 1.3) = (1.2)$$

$$G((3.1, 2.1, 1.3), (3.1, 1.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.1, 1.3) = \emptyset$$

$$G((3.1, 2.1, 1.3), (3.1, 1.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 1.2, 1.3) = (2.1)$$

$$G((3.1, 2.1, 1.3), (3.1, 1.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 1.2, 1.3) = \emptyset.$$

$$2.6. (3.1, 2.2, 1.3) \times (3.1, 2.2, 1.3)$$

Grenzränder:

$$G((3.1, 2.2, 1.3), (3.1, 2.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.2, 1.3) = \emptyset$$

$$G((3.1, 2.2, 1.3), (3.1, 2.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.2, 1.3) = \emptyset$$

$$G((3.1, 2.2, 1.3), (3.1, 2.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.2, 1.3) = \emptyset$$

$$G((3.1, 2.2, 1.3), (3.1, 2.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.2, 1.3) = \emptyset.$$

$$2.7. (3.1, 2.3, 1.3) \times (3.1, 3.2, 1.3)$$

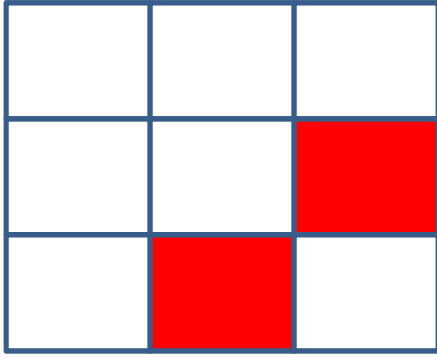
Grenzränder:

$$G((3.1, 2.3, 1.3), (3.1, 3.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.3, 1.3) = \emptyset$$

$$G((3.1, 2.3, 1.3), (3.1, 3.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.3, 1.3) = (3.2)$$

$$G((3.1, 2.3, 1.3), (3.1, 3.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 3.2, 1.3) = \emptyset$$

$$G((3.1, 2.3, 1.3), (3.1, 3.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 3.2, 1.3) = (2.3).$$



2.8. $(3.2, 2.2, 1.2) \times (2.1, 2.2, 2.3)$

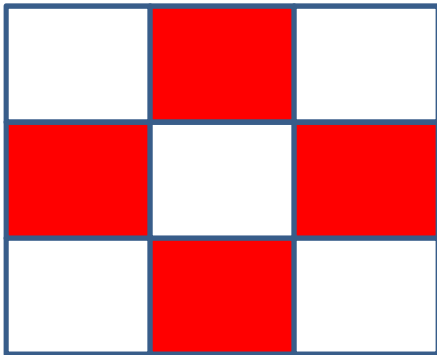
Grenzränder:

$$G((3.2, 2.2, 1.2), (2.1, 2.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.2, 1.2) = (2.1)$$

$$G((3.2, 2.2, 1.2), (2.1, 2.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.2, 1.2) = (2.3)$$

$$G((3.2, 2.2, 1.2), (2.1, 2.2, 2.3)) \cap \mathcal{R}_\lambda(2.1, 2.2, 2.3) = (1.2)$$

$$G((3.2, 2.2, 1.2), (2.1, 2.2, 2.3)) \cap \mathcal{R}_\rho(2.1, 2.2, 2.3) = (3.2).$$



2.9. $(3.2, 2.2, 1.3) \times (3.1, 2.2, 2.3)$

Grenzränder:

$$G((3.2, 2.2, 1.3), (3.1, 2.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.2, 1.3) = (3.1)$$

$$G((3.2, 2.2, 1.3), (3.1, 2.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.2, 1.3) = (2.3)$$

$$G((3.2, 2.2, 1.3), (3.1, 2.2, 2.3)) \cap \mathcal{R}_\lambda(3.1, 2.2, 2.3) = (1.3)$$

$$G((3.2, 2.2, 1.3), (3.1, 2.2, 2.3)) \cap \mathcal{R}_\rho(3.1, 2.2, 2.3) = (3.2).$$

2.10. $(3.3, 2.3, 1.3) \times (3.1, 3.2, 3.3)$

Grenzränder:

$$G((3.3, 2.3, 1.3), (3.1, 3.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.3, 1.3) = (3.1, 3.2)$$

$$G((3.3, 2.3, 1.3), (3.1, 3.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.3, 1.3) = \emptyset$$

$$G((3.3, 2.3, 1.3), (3.1, 3.2, 3.3)) \cap \mathcal{R}_\lambda(3.1, 3.2, 3.3) = (1.3, 2.3)$$

$$G((3.3, 2.3, 1.3), (3.1, 3.2, 3.3)) \cap \mathcal{R}_\rho(3.1, 3.2, 3.3) = \emptyset.$$

3. Irreguläre semiotische Dualsysteme

3.1. $(3.1, 2.2, 1.1) \times (1.1, 2.2, 1.3)$

Grenzränder:

$$G((3.1, 2.2, 1.1), (1.1, 2.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.2, 1.1) = \emptyset$$

$$G((3.1, 2.2, 1.1), (1.1, 2.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.2, 1.1) = (1.3)$$

$$G((3.1, 2.2, 1.1), (1.1, 2.2, 1.3)) \cap \mathcal{R}_\lambda(1.1, 2.2, 1.3) = \emptyset$$

$$G((3.1, 2.2, 1.1), (1.1, 2.2, 1.3)) \cap \mathcal{R}_\rho(1.1, 2.2, 1.3) = (3.1).$$

3.2. $(3.3, 2.2, 1.3) \times (3.1, 2.2, 3.3)$

Grenzränder:

$$G((3.3, 2.2, 1.3), (3.1, 2.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.2, 1.3) = (3.1)$$

$$G((3.3, 2.2, 1.3), (3.1, 2.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.2, 1.3) = \emptyset$$

$$G((3.3, 2.2, 1.3), (3.1, 2.2, 3.3)) \cap \mathcal{R}_\lambda(3.1, 2.2, 3.3) = (1.3)$$

$$G((3.3, 2.2, 1.3), (3.1, 2.2, 3.3)) \cap \mathcal{R}_\rho(3.1, 2.2, 3.3) = \emptyset.$$

$$3.3. (3.1, 2.3, 1.1) \times (1.1, 3.2, 1.3)$$

Grenzränder:

$$G((3.1, 2.3, 1.1), (1.1, 3.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.3, 1.1) = \emptyset$$

$$G((3.1, 2.3, 1.1), (1.1, 3.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.3, 1.1) = (1.3, 3.2)$$

$$G((3.1, 2.3, 1.1), (1.1, 3.2, 1.3)) \cap \mathcal{R}_\lambda(1.1, 3.2, 1.3) = \emptyset$$

$$G((3.1, 2.3, 1.1), (1.1, 3.2, 1.3)) \cap \mathcal{R}_\rho(1.1, 3.2, 1.3) = (2.3, 3.1).$$

$$3.4. (3.1, 2.3, 1.2) \times (2.1, 3.2, 1.3)$$

Grenzränder:

$$G((3.1, 2.3, 1.2), (2.1, 3.2, 1.3)) \cap \mathcal{R}_\lambda(3.1, 2.3, 1.2) = (2.1)$$

$$G((3.1, 2.3, 1.2), (2.1, 3.2, 1.3)) \cap \mathcal{R}_\rho(3.1, 2.3, 1.2) = (1.3, 3.2)$$

$$G((3.1, 2.3, 1.2), (2.1, 3.2, 1.3)) \cap \mathcal{R}_\lambda(2.1, 3.2, 1.3) = (1.2)$$

$$G((3.1, 2.3, 1.2), (2.1, 3.2, 1.3)) \cap \mathcal{R}_\rho(2.1, 3.2, 1.3) = (2.3, 3.1).$$

$$3.5. (3.2, 2.1, 1.3) \times (3.1, 1.2, 2.3)$$

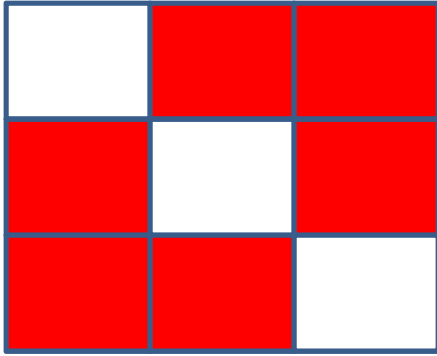
Grenzränder:

$$G((3.2, 2.1, 1.3), (3.1, 1.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.1, 1.3) = (1.2, 3.1)$$

$$G((3.2, 2.1, 1.3), (3.1, 1.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.1, 1.3) = (2.3)$$

$$G((3.2, 2.1, 1.3), (3.1, 1.2, 2.3)) \cap \mathcal{R}_\lambda(3.1, 1.2, 2.3) = (1.3, 2.1)$$

$$G((3.2, 2.1, 1.3), (3.1, 1.2, 2.3)) \cap \mathcal{R}_\rho(3.1, 1.2, 2.3) = (3.2).$$



$$3.6. (3.2, 2.1, 1.1) \times (1.1, 1.2, 2.3)$$

Grenzränder:

$$G((3.2, 2.1, 1.1), (1.1, 1.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.1, 1.1) = \emptyset$$

$$G((3.2, 2.1, 1.1), (1.1, 1.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.1, 1.1) = (1.2, 2.3)$$

$$G((3.2, 2.1, 1.1), (1.1, 1.2, 2.3)) \cap \mathcal{R}_\lambda(1.1, 1.2, 2.3) = \emptyset$$

$$G((3.2, 2.1, 1.1), (1.1, 1.2, 2.3)) \cap \mathcal{R}_\rho(1.1, 1.2, 2.3) = (3.2, 2.1).$$

$$3.7. (3.3, 2.3, 1.2) \times (2.1, 3.2, 3.3)$$

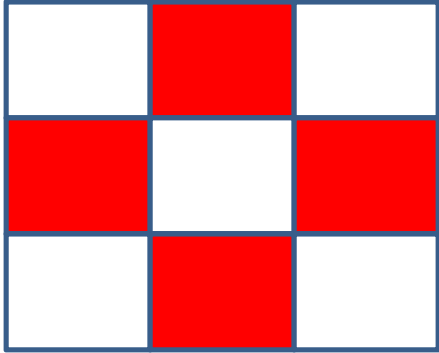
Grenzränder:

$$G((3.3, 2.3, 1.2), (2.1, 3.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.3, 1.2) = (2.1, 3.2)$$

$$G((3.3, 2.3, 1.2), (2.1, 3.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.3, 1.2) = \emptyset$$

$$G((3.3, 2.3, 1.2), (2.1, 3.2, 3.3)) \cap \mathcal{R}_\lambda(2.1, 3.2, 3.3) = (1.2, 2.3)$$

$$G((3.3, 2.3, 1.2), (2.1, 3.2, 3.3)) \cap \mathcal{R}_\rho(2.1, 3.2, 3.3) = \emptyset.$$



$$3.8. (3.2, 2.1, 1.2) \times (2.1, 1.2, 2.3)$$

Grenzränder:

$$G((3.2, 2.1, 1.2), (2.1, 1.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.1, 1.2) = \emptyset$$

$$G((3.2, 2.1, 1.2), (2.1, 1.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.1, 1.2) = (2.3)$$

$$G((3.2, 2.1, 1.2), (2.1, 1.2, 2.3)) \cap \mathcal{R}_\lambda(2.1, 1.2, 2.3) = \emptyset$$

$$G((3.2, 2.1, 1.2), (2.1, 1.2, 2.3)) \cap \mathcal{R}_\rho(2.1, 1.2, 2.3) = (3.2).$$

$$3.9. (3.2, 2.2, 1.1) \times (1.1, 2.2, 2.3)$$

Grenzränder:

$$G((3.2, 2.2, 1.1), (1.1, 2.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.2, 1.1) = \emptyset$$

$$G((3.2, 2.2, 1.1), (1.1, 2.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.2, 1.1) = (2.3)$$

$$G((3.2, 2.2, 1.1), (1.1, 2.2, 2.3)) \cap \mathcal{R}_\lambda(1.1, 2.2, 2.3) = \emptyset$$

$$G((3.2, 2.2, 1.1), (1.1, 2.2, 2.3)) \cap \mathcal{R}_\rho(1.1, 2.2, 2.3) = (3.2).$$

$$3.10. (3.3, 2.3, 1.1) \times (1.1, 3.2, 3.3)$$

Grenzränder:

$$G((3.3, 2.3, 1.1), (1.1, 3.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.3, 1.1) = (3.2)$$

$$G((3.3, 2.3, 1.1), (1.1, 3.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.3, 1.1) = \emptyset$$

$$G((3.3, 2.3, 1.1), (1.1, 3.2, 3.3)) \cap \mathcal{R}_\lambda(1.1, 3.2, 3.3) = (2.3)$$

$$G((3.3, 2.3, 1.1), (1.1, 3.2, 3.3)) \cap \mathcal{R}_\rho(1.1, 3.2, 3.3) = \emptyset.$$

$$3.11. (3.2, 2.3, 1.1) \times (1.1, 3.2, 2.3)$$

Grenzränder:

$$G((3.2, 2.3, 1.1), (1.1, 3.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.3, 1.1) = \emptyset$$

$$G((3.2, 2.3, 1.1), (1.1, 3.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.3, 1.1) = \emptyset$$

$$G((3.2, 2.3, 1.1), (1.1, 3.2, 2.3)) \cap \mathcal{R}_\lambda(1.1, 3.2, 2.3) = \emptyset$$

$$G((3.2, 2.3, 1.1), (1.1, 3.2, 2.3)) \cap \mathcal{R}_\rho(1.1, 3.2, 2.3) = \emptyset.$$

$$3.12. (3.2, 2.3, 1.2) \times (2.1, 3.2, 2.3)$$

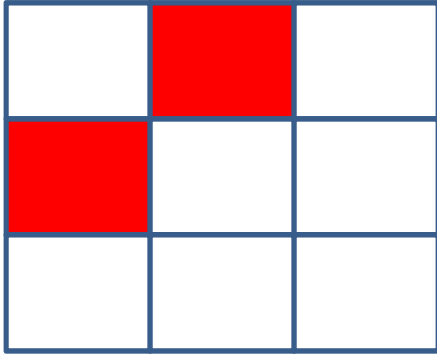
Grenzränder:

$$G((3.2, 2.3, 1.2), (2.1, 3.2, 2.3)) \cap \mathcal{R}_\lambda(3.2, 2.3, 1.2) = (2.1)$$

$$G((3.2, 2.3, 1.2), (2.1, 3.2, 2.3)) \cap \mathcal{R}_\rho(3.2, 2.3, 1.2) = \emptyset$$

$$G((3.2, 2.3, 1.2), (2.1, 3.2, 2.3)) \cap \mathcal{R}_\lambda(2.1, 3.2, 2.3) = (1.2)$$

$$G((3.2, 2.3, 1.2), (2.1, 3.2, 2.3)) \cap \mathcal{R}_\rho(2.1, 3.2, 2.3) = \emptyset.$$



3.13. $(3.3, 2.1, 1.1) \times (1.1, 1.2, 3.3)$

Grenzränder:

$$G((3.3, 2.1, 1.1), (1.1, 1.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.1, 1.1) = \emptyset$$

$$G((3.3, 2.1, 1.1), (1.1, 1.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.1, 1.1) = (1.2)$$

$$G((3.3, 2.1, 1.1), (1.1, 1.2, 3.3)) \cap \mathcal{R}_\lambda(1.1, 1.2, 3.3) = \emptyset$$

$$G((3.3, 2.1, 1.1), (1.1, 1.2, 3.3)) \cap \mathcal{R}_\rho(1.1, 1.2, 3.3) = (2.1).$$

3.14. $(3.3, 2.2, 1.2) \times (2.1, 2.2, 3.3)$

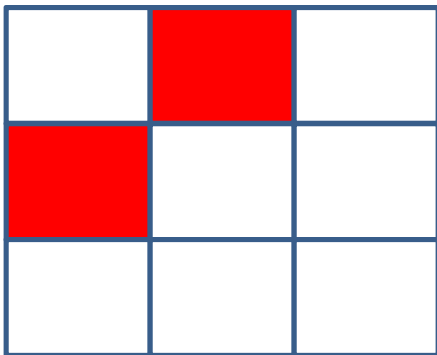
Grenzränder:

$$G((3.3, 2.2, 1.2), (2.1, 2.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.2, 1.2) = (2.1)$$

$$G((3.3, 2.2, 1.2), (2.1, 2.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.2, 1.2) = \emptyset$$

$$G((3.3, 2.2, 1.2), (2.1, 2.2, 3.3)) \cap \mathcal{R}_\lambda(2.1, 2.2, 3.3) = (1.2)$$

$$G((3.3, 2.2, 1.2), (2.1, 2.2, 3.3)) \cap \mathcal{R}_\rho(2.1, 2.2, 3.3) = \emptyset.$$



3.15. $(3.3, 2.1, 1.2) \times (2.1, 1.2, 3.3)$

Grenzränder:

$$G((3.3, 2.1, 1.2), (2.1, 1.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.1, 1.2) = \emptyset$$

$$G((3.3, 2.1, 1.2), (2.1, 1.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.1, 1.2) = \emptyset$$

$$G((3.3, 2.1, 1.2), (2.1, 1.2, 3.3)) \cap \mathcal{R}_\lambda(2.1, 1.2, 3.3) = \emptyset$$

$$G((3.3, 2.1, 1.2), (2.1, 1.2, 3.3)) \cap \mathcal{R}_\rho(2.1, 1.2, 3.3) = \emptyset.$$

3.16. $(3.3, 2.2, 1.1) \times (1.1, 2.2, 3.3)$

Grenzränder:

$$G((3.3, 2.2, 1.1), (1.1, 2.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.2, 1.1) = \emptyset$$

$$G((3.3, 2.2, 1.1), (1.1, 2.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.2, 1.1) = \emptyset$$

$$G((3.3, 2.2, 1.1), (1.1, 2.2, 3.3)) \cap \mathcal{R}_\lambda(1.1, 2.2, 3.3) = \emptyset$$

$$G((3.3, 2.2, 1.1), (1.1, 2.2, 3.3)) \cap \mathcal{R}_\rho(1.1, 2.2, 3.3) = \emptyset.$$

3.17. $(3.3, 2.1, 1.3) \times (3.1, 1.2, 3.3)$

Grenzränder:

$$G((3.3, 2.1, 1.3), (3.1, 1.2, 3.3)) \cap \mathcal{R}_\lambda(3.3, 2.1, 1.3) = (1.2, 3.1)$$

$$G((3.3, 2.1, 1.3), (3.1, 1.2, 3.3)) \cap \mathcal{R}_\rho(3.3, 2.1, 1.3) = \emptyset$$

$$G((3.3, 2.1, 1.3), (3.1, 1.2, 3.3)) \cap \mathcal{R}_\lambda(3.1, 1.2, 3.3) = (1.3, 2.1)$$

$$G((3.3, 2.1, 1.3), (3.1, 1.2, 3.3)) \cap \mathcal{R}_\rho(3.1, 1.2, 3.3) = \emptyset.$$

4. Feststellungen

Über die in den Kapp. 2. und 3. separat ausgewiesenen Homonymien für die regulären und die irregulären semiotischen Dualsysteme gibt es noch bedeutendere Homonymien zwischen beiden Partitionen semiotischer Dualsysteme:

(2.1), (2.2) | (3.17).

(2.4) | (3.2).

(2.6), (2.7) | (3.10).

(2.8) | (3.7).

(2.9), (2.10) | (3.3).

Literatur

Toth, Alfred, Zur Topologie semiotischer Grenzen und Ränder I-II. In: Electronic Journal for Mathematical Semiotics, 2013a

Toth, Alfred, Grenzen und Ränder von Zeichenklassen und ihren dualen Realitätsthematiken. In: Electronic Journal for Mathematical Semiotics, 2013b

Toth, Alfred, Ränder und Grenzen irregulärer semiotischer Dualsysteme. In: Electronic Journal for Mathematical Semiotics, 2013c

5.12.2013