

Prof. Dr. Alfred Toth

Semiotische Nachbarschaftsklassen

1. Gemäß Toth (2009) kann man semiotische Gruppen durch die folgenden Substitutionen von Primzeichen erzeugen.

$$1.1. (.1.) \rightarrow (.3.) \quad (.2.) = \text{const.}$$

$$1.2. (.1.) \rightarrow (.2.) \quad (.3.) = \text{const.}$$

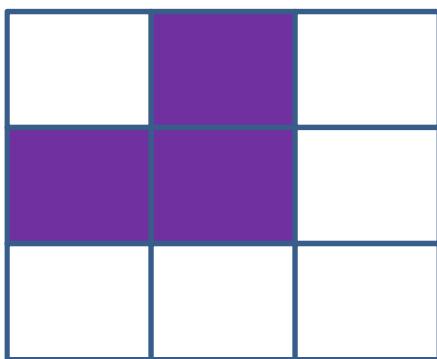
$$1.3. (.2.) \rightarrow (.3.) \quad (.1.) = \text{const.}$$

Da ein enger Zusammenhang zwischen semiotischen Gruppen und den in Toth (2013a, b) untersuchten semiotischen Grenzen, Rändern, Grenzrändern und Nachbarschaften besteht, wird im folgenden gezeigt, wie semiotische Dualsysteme aussehen, bei welchen Subrelationen durch die Nachbarschaftsrelation substituiert werden.

2. Die semiotischen Nachbarschaftsklassen

$$2.1. R = (1.1)$$

$$N(1.1) = (1.2, 2.1, 2.2)$$

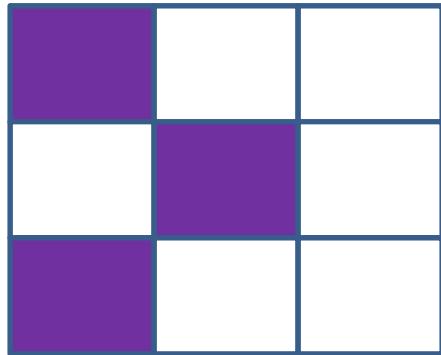
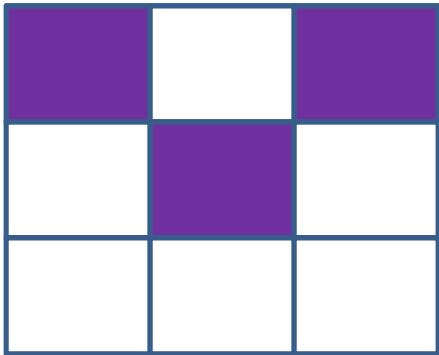


$$(3.1, 2.1, 1.1) \rightarrow (3.1, 2.1, (1.2, 2.1, 2.2)).$$

$$2.2. R = (1.2)$$

$$N(1.2) = (1.1, 1.3, 2.2)$$

$$N(2.1) = (1.1, 2.2, 3.1)$$

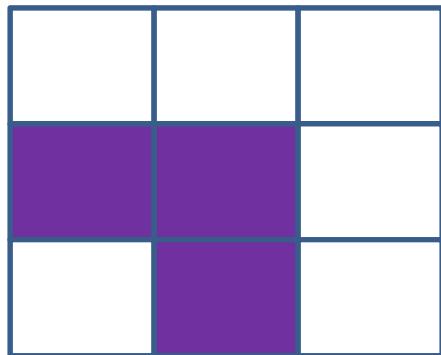
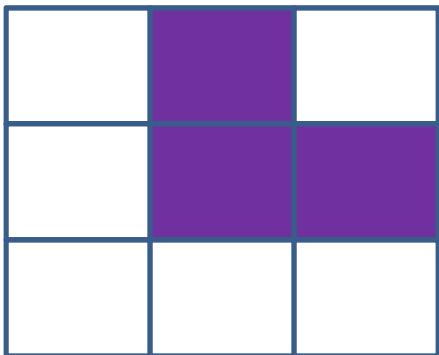


$$(3.1, 2.1, 1.2) \rightarrow (3.1, (1.1, 2.2, 3.1), (1.1, 1.3, 2.2)).$$

$$2.3. R = (1.3)$$

$$N(1.3) = (1.2, 2.2, 2.3)$$

$$N(3.1) = (2.1, 2.2, 3.2)$$



$$(3.1, 2.1, 1.3) \rightarrow ((2.1, 2.2, 3.2), 2.1, (1.2, 2.2, 2.3)).$$

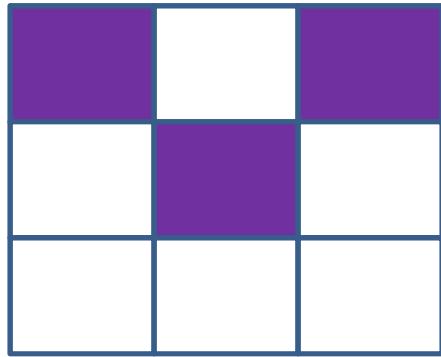
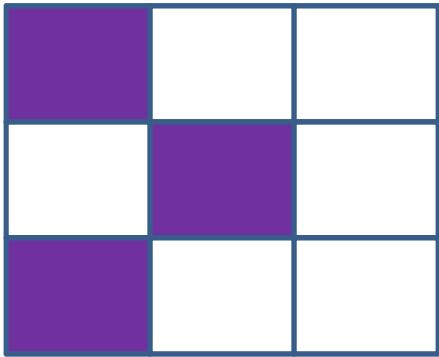
$$(3.1, 2.2, 1.3) \rightarrow ((2.1, 2.2, 3.2), 2.2, (1.2, 2.2, 2.3)).$$

$$(3.1, 2.3, 1.3) \rightarrow ((2.1, 2.2, 3.2), 2.3, (1.2, 2.2, 2.3)).$$

$$2.4. R = (2.1)$$

$$N(2.1) = (1.1, 2.2, 3.1)$$

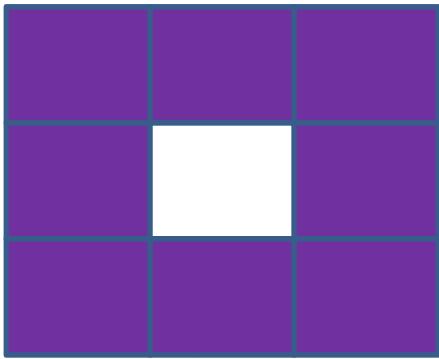
$$N(1.2) = (1.1, 1.3, 2.2)$$



$(3.1, 2.1, 1.2) \rightarrow (3.1, (1.1, 2.2, 3.1), (1.1, 1.3, 2.2))$.

2.5. $R = (2.2)$

$N(2.2) = (1.1, 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3)$



$(3.1, 2.2, 1.2) \rightarrow (3.1, (1.1, 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3), 1.2)$.

$(3.1, 2.2, 1.3) \rightarrow (3.1, (1.1, 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3), 1.3)$.

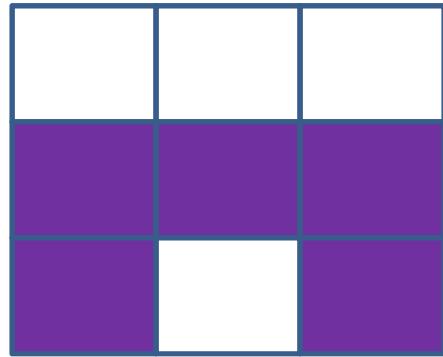
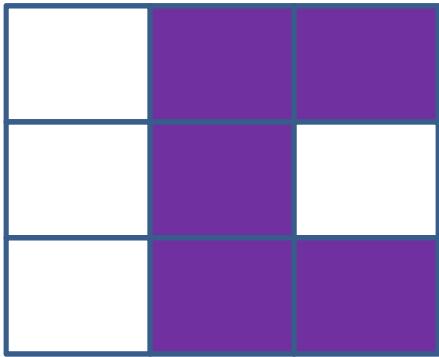
$(3.2, 2.2, 1.2) \rightarrow (3.2, (1.1, 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3), 1.2)$.

$(3.2, 2.2, 1.3) \rightarrow (3.2, (1.1, 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3), 1.3)$.

2.6. $R = (2.3)$

$N(2.3) = (1.2, 1.3, 2.1, 3.2, 3.3)$

$N(3.2) = (2.1, 2.2, 2.3, 3.1, 3.3)$

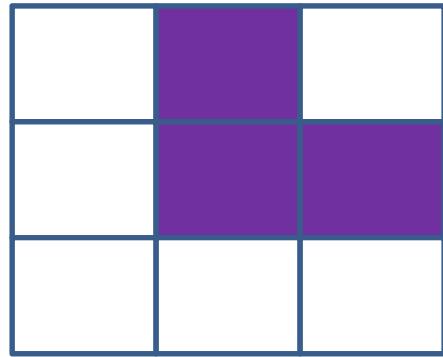
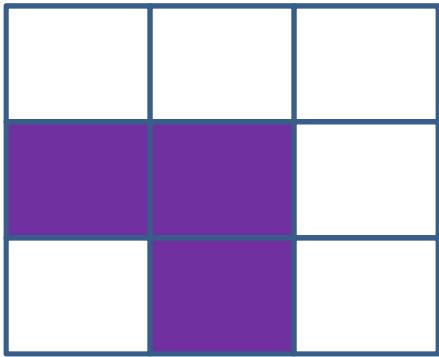


$$(3.2, 2.3, 1.3) \rightarrow ((2.1, 2.2, 2.3, 3.1, 3.3), (1.2, 1.3, 2.1, 3.2, 3.3), 1.3).$$

$$2.7. R = (3.1)$$

$$N(3.1) = (2.1, 2.2, 3.2)$$

$$N(1.3) = (1.2, 2.2, 2.3)$$



$$(3.1, 2.1, 1.3) \rightarrow ((2.1, 2.2, 3.2), 2.1, (1.2, 2.2, 2.3)).$$

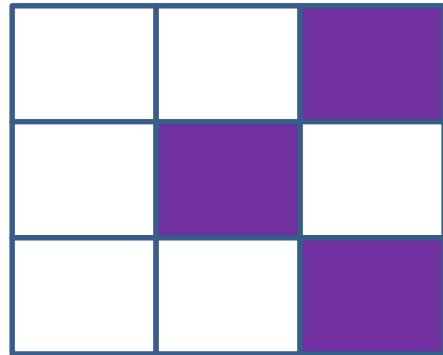
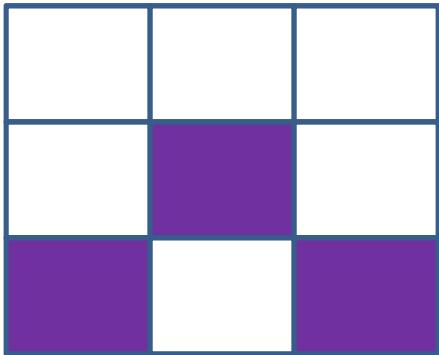
$$(3.1, 2.2, 1.3) \rightarrow ((2.1, 2.2, 3.2), 2.2, (1.2, 2.2, 2.3)).$$

$$(3.1, 2.3, 1.3) \rightarrow ((2.1, 2.2, 3.2), 2.3, (1.2, 2.2, 2.3)).$$

$$2.8. R = (3.2)$$

$$N(3.2) = (2.2, 3.1, 3.3)$$

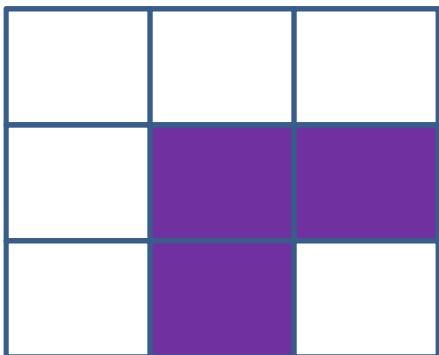
$$N(2.3) = (1.3, 2.2, 3.3)$$



$(3.2, 2.3, 1.3) \rightarrow ((2.2, 3.1, 3.3), (1.3, 2.2, 3.3), 1.3)$.

2.9. $R = (3.3)$

$N(3.3) = (2.2, 2.3, 3.2)$



$(3.3, 2.3, 1.3) \rightarrow ((2.2, 2.3, 3.2), 2.3, 1.3)$.

Literatur

Toth, Alfred, Gruppentheoretische Semiotik. In: Electronic Journal for Mathematical Semiotics, 2009

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

Toth, Alfred, Grenzen, Ränder und Nachbarschaften semiotischer Subrelationen. In: Electronic Journal for Mathematical Semiotics, 2013b

9.12.2013