Prof. Dr. Alfred Toth

Eine ternäre triadische Semiotik mit Primzeichen

1. In Toth (2026a) hatten wir darauf hingewiesen, daß die 3-adische Semiotik mit 3 Werten und 3 Orten die folgende relationale Strukturformel hat

n-adisch	Orte	Werte
3	3	3,

daß aber dyadische Subzeichen, welche die Zeichenklassen und Realitätsthematiken konstituieren, die relationale Strukturformel

n-adisch	Orte	Werte
2	3	3

haben. Einfacher ausgedrückt: Triadische semiotische Relationen sind aus dyadischen Teilrelationen zusammengesetzt.

Um dieses Ungleichgewicht zu beseitigen, bilden wir die 10 peirceschen Zeichenklassen auf ihre trichotomischen Werte, d.h. auf ihre Variablen, ab

ZKl(1) = (1, 1, 1) ZKl(6) = (1, 3, 3)

ZKl(2) = (1, 1, 2) ZKl(7) = (2, 2, 2)

ZKl(3) = (1, 1, 3) ZKl(8) = (2, 2, 3)

ZKl(4) = (1, 2, 2) ZKl(9) = (2, 3, 3)

ZKl(5) = (1, 2, 3) ZKl(10) = (3, 3, 3).

Wir haben nun die 10 Zeichenklassen mit Primzeichen ausgedrückt. Diese bilden wir nun auf ternäre Triaden ab (vgl. Toth 2026b-d). Damit hat jedes Primzeichen einen ontischen Spielraum von 3 Orten. Das ist innerhalb einer Semiotik mit der relationalen Strukturformel

n-adisch	Orte	Werte
3	3	3

die maximale ontische Freiheit.

2. Die vollständige ternäre triadische Semiotik mit Primzeichen

ZKl(1) = (1, 1, 1)

R = ((1, ❑, ❑), (1, ❑, ❑), (1, ❑, ❑))

R = ((1, ❑, ❑), (1, ❑, ❑), (❑, 1, ❑))

R = ((1, ▢, ▢), (1, ▢, ▢), (▢, ▢, 1))

R = ((1, ▢, ▢), (▢, 1, ▢), (1, ▢, ▢))
R = ((1, ▢, ▢), (▢, 1, ▢), (▢, 1, ▢))
R = ((1, ▢, ▢), (▢, 1, ▢), (▢, ▢, 1))

R = ((1, ▢, ▢), (▢, ▢, 1), (1, ▢, ▢))
R = ((1, ▢, ▢), (▢, ▢, 1), (▢, 1, ▢))
R = ((1, ▢, ▢), (▢, ▢, 1), (▢, ▢, 1))

R = ((▢, 1, ▢), (1, ▢, ▢), (1, ▢, ▢))
R = ((▢, 1, ▢), (1, ▢, ▢), (▢, 1, ▢))
R = ((▢, 1, ▢), (1, ▢, ▢), (▢, ▢, 1))

R = ((▢, 1, ▢), (▢, 1, ▢), (1, ▢, ▢))
R = ((▢, 1, ▢), (▢, 1, ▢), (▢, 1, ▢))
R = ((▢, 1, ▢), (▢, 1, ▢), (▢, ▢, 1))

R = ((▢, 1, ▢), (▢, ▢, 1), (1, ▢, ▢))
R = ((▢, 1, ▢), (▢, ▢, 1), (▢, 1, ▢))
R = ((▢, 1, ▢), (▢, ▢, 1), (▢, ▢, 1))

R = ((▢, ▢, 1), (1, ▢, ▢), (1, ▢, ▢))
R = ((▢, ▢, 1), (1, ▢, ▢), (▢, 1, ▢))
R = ((▢, ▢, 1), (1, ▢, ▢), (▢, ▢, 1))

R = ((▢, ▢, 1), (▢, 1, ▢), (1, ▢, ▢))

R = ((▢, ▢, 1), (▢, 1, ▢), (▢, 1, ▢))

R = ((▢, ▢, 1), (▢, 1, ▢), (▢, ▢, 1))

R = ((▢, ▢, 1), (▢, ▢, 1), (1, ▢, ▢))

R = ((▢, ▢, 1), (▢, ▢, 1), (▢, 1, ▢))

R = ((▢, ▢, 1), (▢, ▢, 1), (▢, ▢, 1))

ZKl(2) = (1, 1, 2)

R = ((1, ▢, ▢), (1, ▢, ▢), (2, ▢, ▢))

R = ((1, ▢, ▢), (1, ▢, ▢), (▢, 2, ▢))

R = ((1, ▢, ▢), (1, ▢, ▢), (▢, ▢, 2))

R = ((1, ▢, ▢), (▢, 1, ▢), (2, ▢, ▢))

R = ((1, ▢, ▢), (▢, 1, ▢), (▢, 2, ▢))

R = ((1, ▢, ▢), (▢, 1, ▢), (▢, ▢, 2))

R = ((1, ▢, ▢), (▢, ▢, 1), (2, ▢, ▢))

R = ((1, ▢, ▢), (▢, ▢, 1), (▢, 2, ▢))

R = ((1, ▢, ▢), (▢, ▢, 1), (▢, ▢, 2))

R = ((▢, 1, ▢), (1, ▢, ▢), (2, ▢, ▢))

R = ((▢, 1, ▢), (1, ▢, ▢), (▢, 2, ▢))

R = ((▢, 1, ▢), (1, ▢, ▢), (▢, ▢, 2))

R = ((▢, 1, ▢), (▢, 1, ▢), (2, ▢, ▢))

R = ((▢, 1, ▢), (▢, 1, ▢), (▢, 2, ▢))

R = ((▢, 1, ▢), (▢, 1, ▢), (▢, ▢, 2))

R = ((□, 1, □), (□, □, 1), (2, □, □))

R = ((□, 1, □), (□, □, 1), (□, 2, □))

R = ((□, 1, □), (□, □, 1), (□, □, 2))

R = ((□, □, 1), (1, □, □), (2, □, □))

R = ((□, □, 1), (1, □, □), (□, 2, □))

R = ((□, □, 1), (1, □, □), (□, □, 2))

R = ((□, □, 1), (□, 1, □), (2, □, □))

R = ((□, □, 1), (□, 1, □), (□, 2, □))

R = ((□, □, 1), (□, 1, □), (□, □, 2))

R = ((□, □, 1), (□, □, 1), (2, □, □))

R = ((□, □, 1), (□, □, 1), (□, 2, □))

R = ((□, □, 1), (□, □, 1), (□, □, 2))

ZKl(3) = (1, 1, 3)

R = ((1, □, □), (1, □, □), (3, □, □))

R = ((1, □, □), (1, □, □), (□, 3, □))

R = ((1, □, □), (1, □, □), (□, □, 3))

R = ((1, □, □), (□, 1, □), (3, □, □))

R = ((1, □, □), (□, 1, □), (□, 3, □))

R = ((1, □, □), (□, 1, □), (□, □, 3))

R = ((1, □, □), (□, □, 1), (3, □, □))

R = ((1, □, □), (□, □, 1), (□, 3, □))

R = ((1, □, □), (□, □, 1), (□, □, 3))

R = ((□, 1, □), (1, □, □), (3, □, □))

R = ((□, 1, □), (1, □, □), (□, 3, □))

R = ((□, 1, □), (1, □, □), (□, □, 3))

R = ((□, 1, □), (□, 1, □), (3, □, □))

R = ((□, 1, □), (□, 1, □), (□, 3, □))

R = ((□, 1, □), (□, 1, □), (□, □, 3))

R = ((□, 1, □), (□, □, 1), (3, □, □))

R = ((□, 1, □), (□, □, 1), (□, 3, □))

R = ((□, 1, □), (□, □, 1), (□, □, 3))

R = ((□, □, 1), (1, □, □), (3, □, □))

R = ((□, □, 1), (1, □, □), (□, 3, □))

R = ((□, □, 1), (1, □, □), (□, □, 3))

R = ((□, □, 1), (□, 1, □), (3, □, □))

R = ((□, □, 1), (□, 1, □), (□, 3, □))

R = ((□, □, 1), (□, 1, □), (□, □, 3))

R = ((□, □, 1), (□, □, 1), (3, □, □))

R = ((□, □, 1), (□, □, 1), (□, 3, □))

R = ((□, □, 1), (□, □, 1), (□, □, 3))

ZKl(4) = (1, 2, 2)

R = ((1, □, □), (2, □, □), (2, □, □))

R = ((1, □, □), (2, □, □), (□, 2, □))

R = ((1, ▢, ▢), (2, ▢, ▢), (▢, ▢, 2))

R = ((1, ▢, ▢), (▢, 2, ▢), (2, ▢, ▢))
R = ((1, ▢, ▢), (▢, 2, ▢), (▢, 2, ▢))
R = ((1, ▢, ▢), (▢, 2, ▢), (▢, ▢, 2))

R = ((1, ▢, ▢), (▢, ▢, 2), (2, ▢, ▢))
R = ((1, ▢, ▢), (▢, ▢, 2), (▢, 2, ▢))
R = ((1, ▢, ▢), (▢, ▢, 2), (▢, ▢, 2))

R = ((▢, 1, ▢), (2, ▢, ▢), (2, ▢, ▢))
R = ((▢, 1, ▢), (2, ▢, ▢), (▢, 2, ▢))
R = ((▢, 1, ▢), (2, ▢, ▢), (▢, ▢, 2))

R = ((▢, 1, ▢), (▢, 2, ▢), (2, ▢, ▢))
R = ((▢, 1, ▢), (▢, 2, ▢), (▢, 2, ▢))
R = ((▢, 1, ▢), (▢, 2, ▢), (▢, ▢, 2))

R = ((▢, 1, ▢), (▢, ▢, 2), (2, ▢, ▢))
R = ((▢, 1, ▢), (▢, ▢, 2), (▢, 2, ▢))
R = ((▢, 1, ▢), (▢, ▢, 2), (▢, ▢, 2))

R = ((▢, ▢, 1), (2, ▢, ▢), (2, ▢, ▢))
R = ((▢, ▢, 1), (2, ▢, ▢), (▢, 2, ▢))
R = ((▢, ▢, 1), (2, ▢, ▢), (▢, ▢, 2))

R = ((▢, ▢, 1), (▢, 2, ▢), (2, ▢, ▢))

$R = ((\square, \square, 1), (\square, 2, \square), (\square, 2, \square))$

$R = ((\square, \square, 1), (\square, 2, \square), (\square, \square, 2))$

$R = ((\square, \square, 1), (\square, \square, 2), (2, \square, \square))$

$R = ((\square, \square, 1), (\square, \square, 2), (\square, 2, \square))$

$R = ((\square, \square, 1), (\square, \square, 2), (\square, \square, 2))$

$\mathrm{ZKl}(5) = (1, 2, 3)$

$R = ((1, \square, \square), (2, \square, \square), (3, \square, \square))$

$R = ((1, \square, \square), (2, \square, \square), (\square, 3, \square))$

$R = ((1, \square, \square), (2, \square, \square), (\square, \square, 3))$

$R = ((1, \square, \square), (\square, 2, \square), (3, \square, \square))$

$R = ((1, \square, \square), (\square, 2, \square), (\square, 3, \square))$

$R = ((1, \square, \square), (\square, 2, \square), (\square, \square, 3))$

$R = ((1, \square, \square), (\square, \square, 2), (3, \square, \square))$

$R = ((1, \square, \square), (\square, \square, 2), (\square, 3, \square))$

$R = ((1, \square, \square), (\square, \square, 2), (\square, \square, 3))$

$R = ((\square, 1, \square), (2, \square, \square), (3, \square, \square))$

$R = ((\square, 1, \square), (2, \square, \square), (\square, 3, \square))$

$R = ((\square, 1, \square), (2, \square, \square), (\square, \square, 3))$

$R = ((\square, 1, \square), (\square, 2, \square), (3, \square, \square))$

$R = ((\square, 1, \square), (\square, 2, \square), (\square, 3, \square))$

$R = ((\square, 1, \square), (\square, 2, \square), (\square, \square, 3))$

R = ((□, 1, □), (□, □, 2), (3, □, □))

R = ((□, 1, □), (□, □, 2), (□, 3, □))

R = ((□, 1, □), (□, □, 2), (□, □, 3))

R = ((□, □, 1), (2, □, □), (3, □, □))

R = ((□, □, 1), (2, □, □), (□, 3, □))

R = ((□, □, 1), (2, □, □), (□, □, 3))

R = ((□, □, 1), (□, 2, □), (3, □, □))

R = ((□, □, 1), (□, 2, □), (□, 3, □))

R = ((□, □, 1), (□, 2, □), (□, □, 3))

R = ((□, □, 1), (□, □, 2), (3, □, □))

R = ((□, □, 1), (□, □, 2), (□, 3, □))

R = ((□, □, 1), (□, □, 2), (□, □, 3))

ZKl(6) = (1, 3, 3)

R = ((1, □, □), (3, □, □), (3, □, □))

R = ((1, □, □), (3, □, □), (□, 3, □))

R = ((1, □, □), (3, □, □), (□, □, 3))

R = ((1, □, □), (□, 3, □), (3, □, □))

R = ((1, □, □), (□, 3, □), (□, 3, □))

R = ((1, □, □), (□, 3, □), (□, □, 3))

R = ((1, □, □), (□, □, 3), (3, □, □))

R = ((1, □, □), (□, □, 3), (□, 3, □))

R = ((1, □, □), (□, □, 3), (□, □, 3))

R = ((□, 1, □), (3, □, □), (3, □, □))

R = ((□, 1, □), (3, □, □), (□, 3, □))

R = ((□, 1, □), (3, □, □), (□, □, 3))

R = ((□, 1, □), (□, 3, □), (3, □, □))

R = ((□, 1, □), (□, 3, □), (□, 3, □))

R = ((□, 1, □), (□, 3, □), (□, □, 3))

R = ((□, 1, □), (□, □, 3), (3, □, □))

R = ((□, 1, □), (□, □, 3), (□, 3, □))

R = ((□, 1, □), (□, □, 3), (□, □, 3))

R = ((□, □, 1), (3, □, □), (3, □, □))

R = ((□, □, 1), (3, □, □), (□, 3, □))

R = ((□, □, 1), (3, □, □), (□, □, 3))

R = ((□, □, 1), (□, 3, □), (3, □, □))

R = ((□, □, 1), (□, 3, □), (□, 3, □))

R = ((□, □, 1), (□, 3, □), (□, □, 3))

R = ((□, □, 1), (□, □, 3), (3, □, □))

R = ((□, □, 1), (□, □, 3), (□, 3, □))

R = ((□, □, 1), (□, □, 3), (□, □, 3))

ZKl(7) = (2, 2, 2)

R = ((2, □, □), (2, □, □), (2, □, □))

R = ((2, □, □), (2, □, □), (□, 2, □))

R = ((2, ▢, ▢), (2, ▢, ▢), (▢, ▢, 2))

R = ((2, ▢, ▢), (▢, 2, ▢), (2, ▢, ▢))
R = ((2, ▢, ▢), (▢, 2, ▢), (▢, 2, ▢))
R = ((2, ▢, ▢), (▢, 2, ▢), (▢, ▢, 2))

R = ((2, ▢, ▢), (▢, ▢, 2), (2, ▢, ▢))
R = ((2, ▢, ▢), (▢, ▢, 2), (▢, 2, ▢))
R = ((2, ▢, ▢), (▢, ▢, 2), (▢, ▢, 2))

R = ((▢, 2, ▢), (2, ▢, ▢), (2, ▢, ▢))
R = ((▢, 2, ▢), (2, ▢, ▢), (▢, 2, ▢))
R = ((▢, 2, ▢), (2, ▢, ▢), (▢, ▢, 2))

R = ((▢, 2, ▢), (▢, 2, ▢), (2, ▢, ▢))
R = ((▢, 2, ▢), (▢, 2, ▢), (▢, 2, ▢))
R = ((▢, 2, ▢), (▢, 2, ▢), (▢, ▢, 2))

R = ((▢, 2, ▢), (▢, ▢, 2), (2, ▢, ▢))
R = ((▢, 2, ▢), (▢, ▢, 2), (▢, 2, ▢))
R = ((▢, 2, ▢), (▢, ▢, 2), (▢, ▢, 2))

R = ((▢, ▢, 2), (2, ▢, ▢), (2, ▢, ▢))
R = ((▢, ▢, 2), (2, ▢, ▢), (▢, 2, ▢))
R = ((▢, ▢, 2), (2, ▢, ▢), (▢, ▢, 2))

R = ((▢, ▢, 2), (▢, 2, ▢), (2, ▢, ▢))

R = ((□, □, 2), (□, 2, □), (□, 2, □))

R = ((□, □, 2), (□, 2, □), (□, □, 2))

R = ((□, □, 2), (□, □, 2), (2, □, □))

R = ((□, □, 2), (□, □, 2), (□, 2, □))

R = ((□, □, 2), (□, □, 2), (□, □, 2))

ZKl(8) = (2, 2, 3)

R = ((2, □, □), (2, □, □), (3, □, □))

R = ((2, □, □), (2, □, □), (□, 3, □))

R = ((2, □, □), (2, □, □), (□, □, 3))

R = ((2, □, □), (□, 2, □), (3, □, □))

R = ((2, □, □), (□, 2, □), (□, 3, □))

R = ((2, □, □), (□, 2, □), (□, □, 3))

R = ((2, □, □), (□, □, 2), (3, □, □))

R = ((2, □, □), (□, □, 2), (□, 3, □))

R = ((2, □, □), (□, □, 2), (□, □, 3))

R = ((□, 2, □), (2, □, □), (3, □, □))

R = ((□, 2, □), (2, □, □), (□, 3, □))

R = ((□, 2, □), (2, □, □), (□, □, 3))

R = ((□, 2, □), (□, 2, □), (3, □, □))

R = ((□, 2, □), (□, 2, □), (□, 3, □))

R = ((□, 2, □), (□, 2, □), (□, □, 3))

$R = ((\square, 2, \square), (\square, \square, 2), (3, \square, \square))$

$R = ((\square, 2, \square), (\square, \square, 2), (\square, 3, \square))$

$R = ((\square, 2, \square), (\square, \square, 2), (\square, \square, 3))$

$R = ((\square, \square, 2), (2, \square, \square), (3, \square, \square))$

$R = ((\square, \square, 2), (2, \square, \square), (\square, 3, \square))$

$R = ((\square, \square, 2), (2, \square, \square), (\square, \square, 3))$

$R = ((\square, \square, 2), (\square, 2, \square), (3, \square, \square))$

$R = ((\square, \square, 2), (\square, 2, \square), (\square, 3, \square))$

$R = ((\square, \square, 2), (\square, 2, \square), (\square, \square, 3))$

$R = ((\square, \square, 2), (\square, \square, 2), (3, \square, \square))$

$R = ((\square, \square, 2), (\square, \square, 2), (\square, 3, \square))$

$R = ((\square, \square, 2), (\square, \square, 2), (\square, \square, 3))$

$ZKl(9) = (2, 3, 3)$

$R = ((2, \square, \square), (3, \square, \square), (3, \square, \square))$

$R = ((2, \square, \square), (3, \square, \square), (\square, 3, \square))$

$R = ((2, \square, \square), (3, \square, \square), (\square, \square, 3))$

$R = ((2, \square, \square), (\square, 3, \square), (3, \square, \square))$

$R = ((2, \square, \square), (\square, 3, \square), (\square, 3, \square))$

$R = ((2, \square, \square), (\square, 3, \square), (\square, \square, 3))$

$R = ((2, \square, \square), (\square, \square, 3), (3, \square, \square))$

$R = ((2, \square, \square), (\square, \square, 3), (\square, 3, \square))$

$R = ((2, \square, \square), (\square, \square, 3), (\square, \square, 3))$

$R = ((\square, 2, \square), (3, \square, \square), (3, \square, \square))$

$R = ((\square, 2, \square), (3, \square, \square), (\square, 3, \square))$

$R = ((\square, 2, \square), (3, \square, \square), (\square, \square, 3))$

$R = ((\square, 2, \square), (\square, 3, \square), (3, \square, \square))$

$R = ((\square, 2, \square), (\square, 3, \square), (\square, 3, \square))$

$R = ((\square, 2, \square), (\square, 3, \square), (\square, \square, 3))$

$R = ((\square, 2, \square), (\square, \square, 3), (3, \square, \square))$

$R = ((\square, 2, \square), (\square, \square, 3), (\square, 3, \square))$

$R = ((\square, 2, \square), (\square, \square, 3), (\square, \square, 3))$

$R = ((\square, \square, 2), (3, \square, \square), (3, \square, \square))$

$R = ((\square, \square, 2), (3, \square, \square), (\square, 3, \square))$

$R = ((\square, \square, 2), (3, \square, \square), (\square, \square, 3))$

$R = ((\square, \square, 2), (\square, 3, \square), (3, \square, \square))$

$R = ((\square, \square, 2), (\square, 3, \square), (\square, 3, \square))$

$R = ((\square, \square, 2), (\square, 3, \square), (\square, \square, 3))$

$R = ((\square, \square, 2), (\square, \square, 3), (3, \square, \square))$

$R = ((\square, \square, 2), (\square, \square, 3), (\square, 3, \square))$

$R = ((\square, \square, 2), (\square, \square, 3), (\square, \square, 3))$

$\mathrm{ZKl}(10) = (3, 3, 3)$

$R = ((3, \square, \square), (3, \square, \square), (3, \square, \square))$

$R = ((3, \square, \square), (3, \square, \square), (\square, 3, \square))$

R = ((3, ▢, ▢), (3, ▢, ▢), (▢, ▢, 3))

R = ((3, ▢, ▢), (▢, 3, ▢), (3, ▢, ▢))
R = ((3, ▢, ▢), (▢, 3, ▢), (▢, 3, ▢))
R = ((3, ▢, ▢), (▢, 3, ▢), (▢, ▢, 3))

R = ((3, ▢, ▢), (▢, ▢, 3), (3, ▢, ▢))
R = ((3, ▢, ▢), (▢, ▢, 3), (▢, 3, ▢))
R = ((3, ▢, ▢), (▢, ▢, 3), (▢, ▢, 3))

R = ((▢, 3, ▢), (3, ▢, ▢), (3, ▢, ▢))
R = ((▢, 3, ▢), (3, ▢, ▢), (▢, 3, ▢))
R = ((▢, 3, ▢), (3, ▢, ▢), (▢, ▢, 3))

R = ((▢, 3, ▢), (▢, 3, ▢), (3, ▢, ▢))
R = ((▢, 3, ▢), (▢, 3, ▢), (▢, 3, ▢))
R = ((▢, 3, ▢), (▢, 3, ▢), (▢, ▢, 3))

R = ((▢, 3, ▢), (▢, ▢, 3), (3, ▢, ▢))
R = ((▢, 3, ▢), (▢, ▢, 3), (▢, 3, ▢))
R = ((▢, 3, ▢), (▢, ▢, 3), (▢, ▢, 3))

R = ((▢, ▢, 3), (3, ▢, ▢), (3, ▢, ▢))
R = ((▢, ▢, 3), (3, ▢, ▢), (▢, 3, ▢))
R = ((▢, ▢, 3), (3, ▢, ▢), (▢, ▢, 3))

R = ((▢, ▢, 3), (▢, 3, ▢), (3, ▢, ▢))

R = ((▢, ▢, 3), (▢, 3, ▢), (▢, 3, ▢))

R = ((▢, ▢, 3), (▢, 3, ▢), (▢, ▢, 3))

R = ((▢, ▢, 3), (▢, ▢, 3), (3, ▢, ▢))

R = ((▢, ▢, 3), (▢, ▢, 3), (▢, 3, ▢))

R = ((▢, ▢, 3), (▢, ▢, 3), (▢, ▢, 3))

Literatur

Toth, Alfred, Steligkeit, Werte und Orte von Relationen. In: Electronic Journal for Mathematical Semiotics, 2026a

Toth, Alfred, Triadische Dyaden. In: Electronic Journal for Mathematical Semiotics, 2026b

Toth, Alfred, Eine mehrwertige Semiotik mit differentieller Deixis. In: Electronic Journal for Mathematical Semiotics, 2026c

Toth, Alfred, Antizipative Leerstellen. In: Electronic Journal for Mathematical Semiotics, 2026d

28.2.2026