Prof. Dr. Alfred Toth

Relationalzahlen topologischer semiotischer Relationen VIII

1. Die in Toth (2019a) definierten 6 möglichen Einbettungsstufen 1. Stufe logisch-semiotisch-ontischer Relationen lassen sich mit Hilfe von Relationalzahlen (vgl. Toth 2015) wie folgt definieren

$R = (A, B) = (1, 2)$

$R = ((A, B)) = ((1, 2)_{-1})$

$R = ((A), B) = (1_{-1}, 2)$

$R = (B, (A)) = (2, 1_{-1})$

$R = ((B), A) = (2_{-1}, 1)$

$R = (B, (A)) = (2, 1_{-1})$.

Für eine dyadisch-ternäre Zeichenrelation der allgemeinen Form

$Z = ((w.x), (y.z))$

bekommen wir also das 6-tupel (vgl. Toth 2019b)

$Z = ((w.x), (y.z))$

$Z = (((w.x), (y.z))_{-1})$

$Z = ((w.x)_{-1}, (y.z))$

$Z = ((w.x), (y.z)_{-1})$

$Z = ((y.z)_{-1}, (w.x))$

$Z = ((y.z), (w.x)_{-1})$

2. Die 6 mal 36 = 216 durch E differenzierbaren topologischen semiotischen Relationen, d.h. das vollständige System einer topologischer dyadisch-trichotomischen Semiotik, läßt sich hernach wie folgt formal darstellen.

$(1.1, 2.1)$ $(1.1_{-1}, 2.1)$ $(1.1, 2.1_{-1})$ $(2.1_{-1}, 1.1)$ $(2.1, 1.1_{-1})$ $((2.1, 1.1)_{-1})$

(1.1, 2.1]	(1.1^{-1}, 2.1]	(1.1, 2.1^{-1}]	(2.1^{-1}, 1.1]	(2.1, 1.1^{-1}]	((1.1, 2.1)$^{-1}$]
[1.1, 2.1)	[1.1^{-1}, 2.1)	[1.1, 2.1^{-1})	[2.1^{-1}, 1.1)	[2.1, 1.1^{-1})	[(1.1, 2.1)$^{-1}$)
[1.1, 2.1]	[1.1^{-1}, 2.1]	[1.1, 2.1^{-1}]	[2.1^{-1}, 1.1]	[2.1, 1.1^{-1}]	[(1.1, 2.1)$^{-1}$]
(1.1, 2.2)	(1.1^{-1}, 2.2)	(1.1, 2.2^{-1})	(2.2^{-1}, 1.1)	(2.2, 1.1^{-1})	((1.1, 2.2)$^{-1}$)
(1.1, 2.2]	(1.1^{-1}, 2.2]	(1.1, 2.2^{-1}]	(2.2^{-1}, 1.1]	(2.2, 1.1^{-1}]	((1.1, 2.2)$^{-1}$]
[1.1, 2.2)	[1.1^{-1}, 2.2)	[1.1, 2.2^{-1})	[2.2^{-1}, 1.1)	[2.2, 1.1^{-1})	[(1.1, 2.2)$^{-1}$)
[1.1, 2.2]	[1.1^{-1}, 2.2]	[1.1, 2.2^{-1}]	[2.2^{-1}, 1.1]	[2.2, 1.1^{-1}]	[(1.1, 2.2)$^{-1}$]
(1.1, 2.3)	(1.1^{-1}, 2.3)	(1.1, 2.3^{-1})	(2.3^{-1}, 1.1)	(2.3, 1.1^{-1})	((1.1, 2.3)$^{-1}$)
(1.1, 2.3]	(1.1^{-1}, 2.3]	(1.1, 2.3^{-1}]	(2.3^{-1}, 1.1]	(2.3, 1.1^{-1}]	((1.1, 2.3)$^{-1}$]
[1.1, 2.3)	[1.1^{-1}, 2.3)	[1.1, 2.3^{-1})	[2.3^{-1}, 1.1)	[2.3, 1.1^{-1})	[(1.1, 2.3)$^{-1}$)
[1.1, 2.3]	[1.1^{-1}, 2.3]	[1.1, 2.3^{-1}]	[2.3^{-1}, 1.1]	[2.3, 1.1^{-1}]	[(1.1, 2.3)$^{-1}$]
(1.2, 2.1)	(1.2^{-1}, 2.1)	(1.2, 2.1^{-1})	(2.1^{-1}, 1.2)	(2.1, 1.2^{-1})	((1.2, 2.1)$^{-1}$)
(1.2, 2.1]	(1.2^{-1}, 2.1]	(1.2, 2.1^{-1}]	(2.1^{-1}, 1.2]	(2.1, 1.2^{-1}]	((1.2, 2.1)$^{-1}$]
[1.2, 2.1)	[1.2^{-1}, 2.1)	[1.2, 2.1^{-1})	[2.1^{-1}, 1.2)	[2.1, 1.2^{-1})	[(1.2, 2.1)$^{-1}$)
[1.2, 2.1]	[1.2^{-1}, 2.1]	[1.2, 2.1^{-1}]	[2.1^{-1}, 1.2]	[2.1, 1.2^{-1}]	[(1.2, 2.1)$^{-1}$]
(1.2, 2.2)	(1.2^{-1}, 2.2)	(1.2, 2.2^{-1})	(2.2^{-1}, 1.2)	(2.2, 1.2^{-1})	((1.2, 2.2)$^{-1}$)
(1.2, 2.2]	(1.2^{-1}, 2.2]	(1.2, 2.2^{-1}]	(1.2^{-1}, 2.2]	(1.2, 2.2^{-1}]	((1.2, 2.2)$^{-1}$]
[1.2, 2.2)	[1.2^{-1}, 2.2)	[1.2, 2.2^{-1})	[2.2^{-1}, 1.2)	[2.2, 1.2^{-1})	[(1.2, 2.2)$^{-1}$)
[1.2, 2.2]	[1.2^{-1}, 2.2]	[1.2, 2.2^{-1}]	[2.2^{-1}, 1.2]	[2.2, 1.2^{-1}]	[(1.2, 2.2)$^{-1}$]
(1.2, 2.3)	(1.2^{-1}, 2.3)	(1.2, 2.3^{-1})	(2.3^{-1}, 1.2)	(2.3, 1.2^{-1})	(1.2, 2.3)$^{-1}$)
(1.2, 2.3]	(1.2^{-1}, 2.3]	(1.2, 2.3^{-1}]	(2.3^{-1}, 1.2]	(2.3, 1.2^{-1}]	((1.2, 2.3)$^{-1}$]
[1.2, 2.3)	[1.2^{-1}, 2.3)	[1.2, 2.3^{-1})	[2.3^{-1}, 1.2)	[2.3, 1.2^{-1})	[(1.2, 2.3)$^{-1}$)

[1.2, 2.3] [1.2$_{-1}$, 2.3] [1.2, 2.3$_{-1}$] [2.3$_{-1}$, 1.2] [2.3, 1.2$_{-1}$] [(1.2, 2.3)$_{-1}$]

(1.3, 2.1) (1.3$_{-1}$, 2.1) (1.3, 2.1$_{-1}$) (2.1$_{-1}$, 1.3) (2.1, 1.3$_{-1}$) ((1.3, 2.1)$_{-1}$)

(1.3, 2.1] (1.3$_{-1}$, 2.1] (1.3, 2.1$_{-1}$] (2.1$_{-1}$, 1.3] (2.1, 1.3$_{-1}$] ((1.3, 2.1)$_{-1}$]

[1.3, 2.1) [1.3$_{-1}$, 2.1) [1.3, 2.1$_{-1}$) [2.1$_{-1}$, 1.3) [2.1, 1.3$_{-1}$) [(1.3, 2.1)$_{-1}$)

[1.3, 2.1] [1.3$_{-1}$, 2.1] [1.3, 2.1$_{-1}$] [2.1$_{-1}$, 1.3] [2.1, 1.3$_{-1}$] [(1.3, 2.1)$_{-1}$]

(1.3, 2.2) (1.3$_{-1}$, 2.2) (1.3, 2.2$_{-1}$) (2.2$_{-1}$, 1.3) (2.2, 1.3$_{-1}$) ((1.3, 2.2) $_{1}$)

(1.3, 2.2] (1.3$_{-1}$, 2.2] (1.3, 2.2$_{-1}$] (2.2$_{-1}$, 1.3] (2.2, 1.3$_{-1}$] ((1.3, 2.2)$_{-1}$]

[1.3, 2.2) [1.3$_{-1}$, 2.2) [1.3, 2.2$_{-1}$) [2.2$_{-1}$, 1.3) [2.2, 1.3$_{-1}$) [(1.3, 2.2)$_{-1}$)

[1.3, 2.2] [1.3$_{-1}$, 2.2] [1.3, 2.2$_{-1}$] [2.2$_{-1}$, 1.3] [2.2, 1.3$_{-1}$] [(1.3, 2.2)$_{-1}$]

(1.3, 2.3) (1.3$_{-1}$, 2.3) (1.3, 2.3$_{-1}$) (2.3$_{-1}$, 1.3) (2.3, 1.3$_{-1}$) ((1.3, 2.3)$_{-1}$)

(1.3, 2.3] (1.3$_{-1}$, 2.3] (1.3, 2.3$_{-1}$] (2.3$_{-1}$, 1.3] (2.3, 1.3$_{-1}$] ((1.3, 2.3)$_{-1}$]

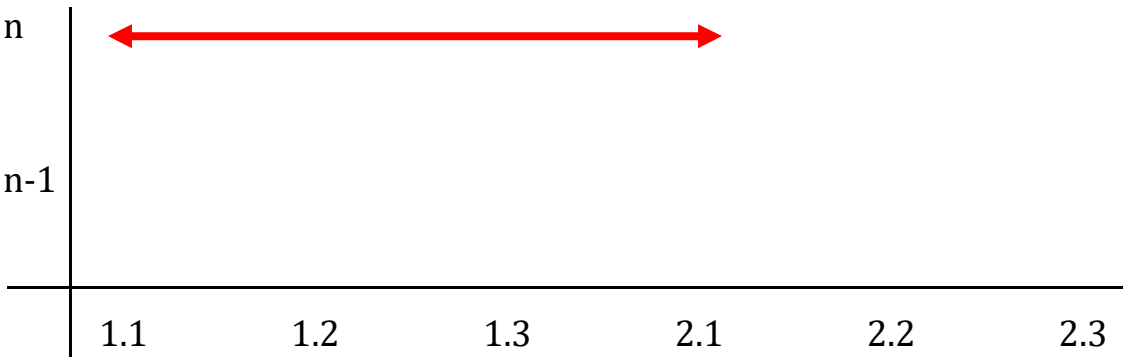
[1.3, 2.3) [1.3$_{-1}$, 2.3) [1.3, 2.3$_{-1}$) [2.3$_{-1}$, 1.3) [2.3, 1.3$_{-1}$) [(1.3, 2.3)$_{-1}$)

[1.3, 2.3] [1.3$_{-1}$, 2.3] [1.3, 2.3$_{-1}$] [2.3$_{-1}$, 1.3] [2.3, 1.3$_{-1}$] [(1.3, 2.3)$_{-1}$].

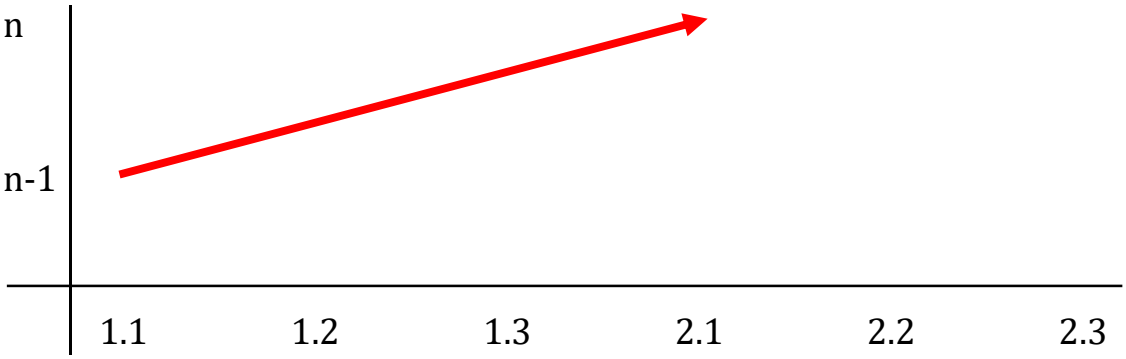
3. Im folgenden konstruieren wir ein Stufenschema für E und zeigen die Funktionsverläufe der ersten Folge dyadisch-trichotomischer semiotischer Relationen

(1.1, 2.1) (1.1$_{-1}$, 2.1) (1.1, 2.1$_{-1}$) (2.1$_{-1}$, 1.1) (2.1, 1.1$_{-1}$) ((2.1, 1.1)$_{-1}$).

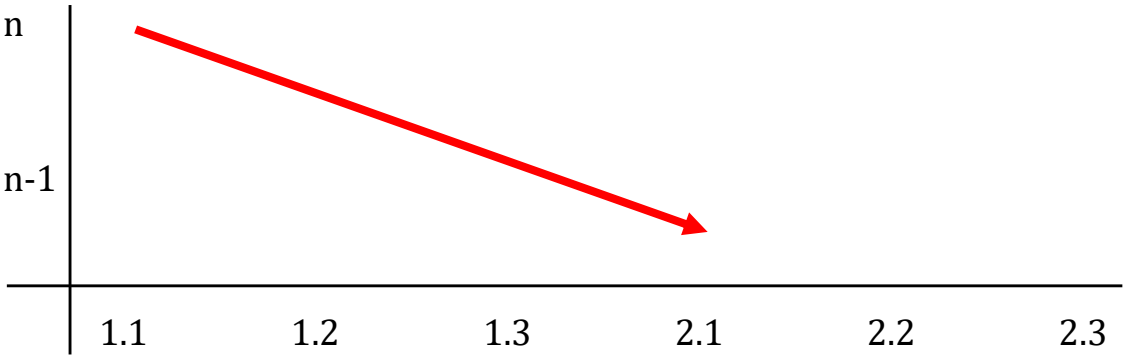
3.1. Z = f((1.1, 2.1))



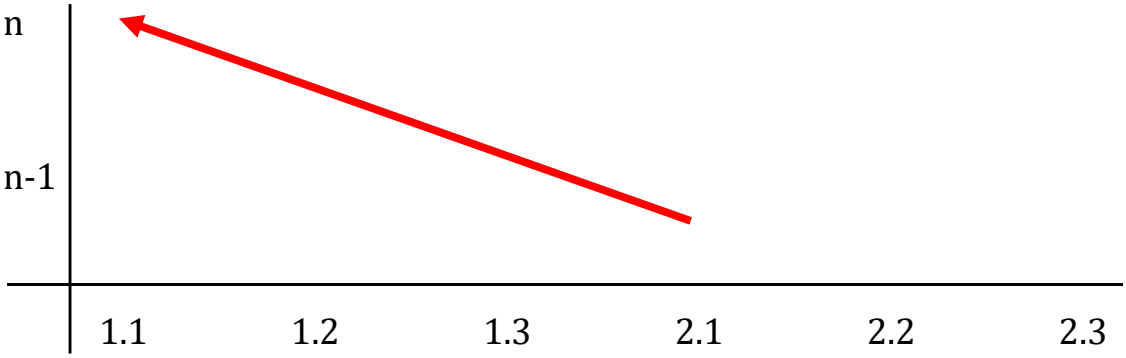
3.2. $Z = f((1.1_{-1}, 2.1))$



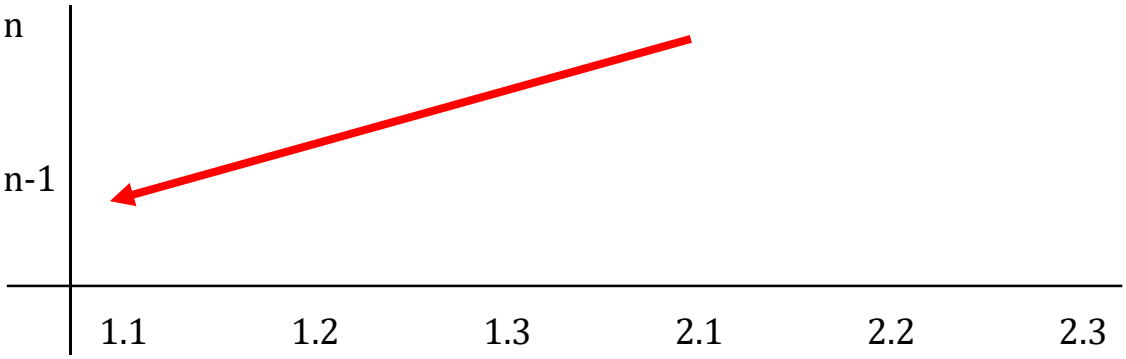
3.3. $Z = f((1.1, 2.1_{-1}))$



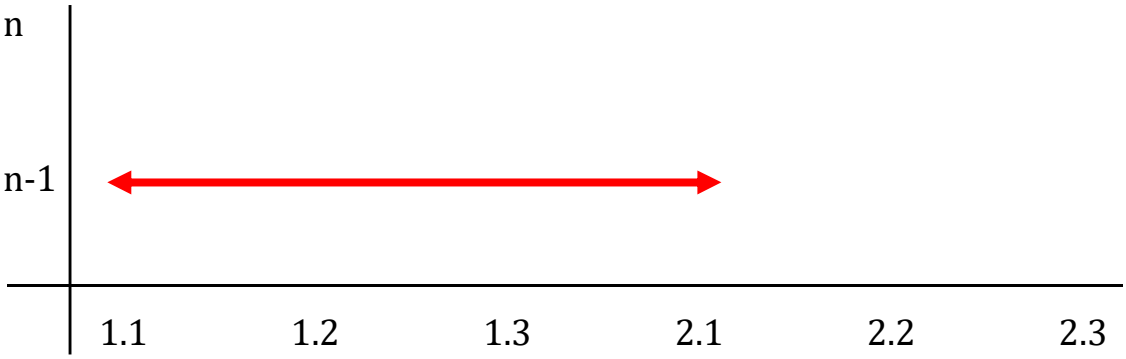
3.4. $Z = f((2.1_{-1}, 1.1))$



3.5. $Z = f((2.1, 1.1_{-1}))$



3.6. $Z = f(((2.1, 1.1)_{-1}))$



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