Prof. Dr. Alfred Toth

Zu einer Arithmetik eingebetteter semiotischer Relationen

1. Zur Einleitung vgl. Toth (2014, 2015a, b).

2. Jede abstrakte dyadische semiotische Relation der Form S = [x.y] mit x, y ∈ {1, 2, 3} kann in vier möglichen Einbettungsstrukturen erscheinen

[x, [y]] [[y], x]

[[x], y] [y, [x]].

Es gilt für E[x.y] = [x.y]

[x.y] ≠ [y.x],

und für E[x.y] ≠ [x.y]

[x, [y]] ≠ [[y], x]

≠ ≠

[[x], y] ≠ [y, [x]].

2.1. Addition

[x, [y]] + [x, [y]] = [x, [y]]

[x, [y]] + [[y], x] = [(x + [y]), ([y] + x)]

[x, [y]] + [[x], y] = [(x + [x]), ([y] + y)]

[x, [y]] + [y, [x]] = [(x + y), ([y] + [x]), usw.

2.2. Subtraktion

[x, [y]] –[x, [y]] = [x, [y]]

[x, [y]] – [[y], x] = [(x – [y]), ([y] – x)]

[x, [y]] – [[x], y] = [(x – [x]), ([y] – y)]

[x, [y]] – [y, [x]] = [(x – y), ([y] – [x]), usw.

3. Jede abstrakte triadische semiotische Relation der Form $Z = [x, y, z]$ mit $x, y, z \in \{1, 2, 3\}$ kann in neun möglichen Einbettungsstrukturen erscheinen

$Z = [x, y, z]$ $\quad$ $Z = [[x, y, z]]$

$Z = [[x], y, z]$ $\quad$ $Z = [x, [y], z]$ $\quad$ $Z = [x, y, [z]]$

$Z = [[x, y], z]$ $\quad$ $Z = [x, [y, z]]$ $\quad$ $Z = [[x], y, [[z]]$

$Z = [x, [y, [z]]$

3.1. Addition

$[x, y, z] + [[x, y, z]] = [(x, y, z) + [x, y, z]]]$

$[x, y, z] + [[x], y, z] = [(x, y, z) + [[x], y, z]]$

$[x, y, z] + [x, [y], z] = [(x, y, z) + [x, [y], z]]$

$[x, y, z] + [x, y, [z]] = [(x, y, z) + [x, y, [z]]]$

$[x, y, z] + [[x, y], z] = [(x, y, z) + [[x, y], z]]$

$[x, y, z] + [x, [y, z]] = [(x, y, z) + [x, [y, z]]]$

$[x, y, z] + [[x], y, [[z]] = [(x, y, z) + [[x], y, [[z]]]$

$[x, y, z] + [x, [y, [z]] = [(x, y, z) + [x, [y, [z]]]$

3.2. Subtraktion

$[x, y, z] - [[x, y, z]] = [(x, y, z) - [x, y, z]]]$

$[x, y, z] - [[x], y, z] = [(x, y, z) - [[x], y, z]]$

$[x, y, z] - [x, [y], z] = [(x, y, z) - [x, [y], z]]$

$[x, y, z] - [x, y, [z]] = [(x, y, z) - [x, y, [z]]]$

$[x, y, z] - [[x, y], z] = [(x, y, z) - [[x, y], z]]$

$[x, y, z] - [x, [y, z]] = [(x, y, z) - [x, [y, z]]]$

$[x, y, z] - [[x], y, [[z]] = [(x, y, z) - [[x], y, [[z]]]$

$[x, y, z] - [x, [y, [z]] = [(x, y, z) - [x, [y, [z]]]$

Literatur

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