

## **Ontische und semiotische qualitative Funktionen**

1. In meinem neuen Buch (Toth 2016a) wurden im Anschluß an Toth (2016b) die isomorphen ontischen und semiotischen qualitativen Funktionen dadurch objektsemantisch relevant gemacht, indem sie in die dreifach mögliche Funktion von der Objektinvariante der Objektabhängigkeit (vgl. Toth 2013) gesetzt wurden. Im folgenden wird das Toth (2016a) zugrunde liegende vollständige System der ontischen und semiotischen qualitativen Funktionen präsentiert.

### **2.1. Ontische qualitative Funktionen**

$$S^* = [S, U, E]$$

$$2.1.1. C = [X_\lambda, Y_Z, Z_\rho]$$

$$f_1: S \rightarrow X_\lambda = f(O^0)$$

$$f_1: S \rightarrow Y_Z = f(O^0)$$

$$f_1: S \rightarrow Z_\rho = f(O^0)$$

$$f_2: S \rightarrow X_\lambda = f(O^1)$$

$$f_2: S \rightarrow Y_Z = f(O^1)$$

$$f_2: S \rightarrow Z_\rho = f(O^1)$$

$$f_3: S \rightarrow X_\lambda = f(O^2)$$

$$f_3: S \rightarrow Y_Z = f(O^2)$$

$$f_3: S \rightarrow Z_\rho = f(O^2)$$

$$f_1: U \rightarrow X_\lambda = f(O^0)$$

$$f_1: U \rightarrow Y_Z = f(O^0)$$

$$f_1: U \rightarrow Z_\rho = f(O^0)$$

$$f_2: U \rightarrow X_\lambda = f(O^1)$$

$$f_2: U \rightarrow Y_Z = f(O^1)$$

$$f_2: U \rightarrow Z_\rho = f(O^1)$$

$$f_3: U \rightarrow X_\lambda = f(O^2)$$

$$f_3: U \rightarrow Y_Z = f(O^2)$$

$$f_3: U \rightarrow Z_\rho = f(O^2)$$

$$f_1: E \rightarrow X_\lambda = f(O^0)$$

$$f_1: E \rightarrow Y_Z = f(O^0)$$

$$f_1: E \rightarrow Z_\rho = f(O^0)$$

$$f_2: E \rightarrow X_\lambda = f(O^1)$$

$$f_2: E \rightarrow Y_Z = f(O^1)$$

$$f_2: E \rightarrow Z_\rho = f(O^1)$$

$$f_3: E \rightarrow X_\lambda = f(O^2)$$

$$f_3: E \rightarrow Y_Z = f(O^2)$$

$$f_3: E \rightarrow Z_\rho = f(O^2)$$

### 2.1.2. L = [Ex, Ad, In]

$$f_1: S \rightarrow Ex = f(O^0)$$

$$f_1: S \rightarrow Ad = f(O^0)$$

$$f_1: S \rightarrow In = f(O^0)$$

$$f_2: S \rightarrow Ex = f(O^1)$$

$$f_2: S \rightarrow Ad = f(O^1)$$

$$f_2: S \rightarrow In = f(O^1)$$

$$f_3: S \rightarrow Ex = f(O^2)$$

$$f_3: S \rightarrow Ad = f(O^2)$$

$$f_3: S \rightarrow In = f(O^2)$$

$$f_1: U \rightarrow Ex = f(O^0)$$

$$f_1: U \rightarrow Ad = f(O^0)$$

$$f_1: U \rightarrow In = f(O^0)$$

$$f_2: U \rightarrow Ex = f(O^1)$$

$$f_2: U \rightarrow Ad = f(O^1)$$

$$f_2: U \rightarrow In = f(O^1)$$

$$f_3: U \rightarrow Ex = f(O^2)$$

$$f_3: U \rightarrow Ad = f(O^2)$$

$$f_3: U \rightarrow In = f(O^2)$$

$$f_1: E \rightarrow Ex = f(O^0)$$

$$f_1: E \rightarrow Ad = f(O^0)$$

$$f_1: E \rightarrow In = f(O^0)$$

$$f_2: E \rightarrow Ex = f(O^1)$$

$$f_2: E \rightarrow Ad = f(O^1)$$

$$f_2: E \rightarrow In = f(O^1)$$

$$f_3: E \rightarrow Ex = f(O^2)$$

$$f_3: E \rightarrow Ad = f(O^2)$$

$$f_3: E \rightarrow In = f(O^2)$$

### 2.1.3. O = (Koo, Sub, Sup)

$$f_1: S \rightarrow Koo = f(O^0)$$

$$f_1: S \rightarrow Sub = f(O^0)$$

$$f_1: S \rightarrow Sup = f(O^0)$$

$$f_2: S \rightarrow Koo = f(O^1)$$

$$f_2: S \rightarrow Sub = f(O^1)$$

$$f_2: S \rightarrow Sup = f(O^1)$$

$$f_3: S \rightarrow Koo = f(O^2)$$

$$f_3: S \rightarrow Sub = f(O^2)$$

$$f_3: S \rightarrow Sup = f(O^2)$$

$$f_1: U \rightarrow Koo = f(O^0)$$

$$f_1: U \rightarrow Sub = f(O^0)$$

$$f_1: U \rightarrow Sup = f(O^0)$$

$$f_2: U \rightarrow Koo = f(O^1)$$

$$f_2: U \rightarrow Sub = f(O^1)$$

$$f_2: U \rightarrow Sup = f(O^1)$$

$$f_3: U \rightarrow Koo = f(O^2)$$

$$f_3: U \rightarrow Sub = f(O^2)$$

$$f_3: U \rightarrow Sup = f(O^2)$$

$$f_1: E \rightarrow Koo = f(O^0) \quad f_1: E \rightarrow Sub = f(O^0) \quad f_1: E \rightarrow Sup = f(O^0)$$

$$f_2: E \rightarrow Koo = f(O^1) \quad f_2: E \rightarrow Sub = f(O^1) \quad f_2: E \rightarrow Sup = f(O^1)$$

$$f_3: E \rightarrow Koo = f(O^2) \quad f_3: E \rightarrow Sub = f(O^2) \quad f_3: E \rightarrow Sup = f(O^2)$$

#### 2.1.4. $Q = [Adj, Subj, Transj]$

$$f_1: S \rightarrow Adj = f(O^0) \quad f_1: S \rightarrow Subj = f(O^0) \quad f_1: S \rightarrow Transj = f(O^0)$$

$$f_2: S \rightarrow Adj = f(O^1) \quad f_2: S \rightarrow Subj = f(O^1) \quad f_2: S \rightarrow Transj = f(O^1)$$

$$f_3: S \rightarrow Adj = f(O^2) \quad f_3: S \rightarrow Subj = f(O^2) \quad f_3: S \rightarrow Transj = f(O^2)$$

$$f_1: U \rightarrow Adj = f(O^0) \quad f_1: U \rightarrow Subj = f(O^0) \quad f_1: U \rightarrow Transj = f(O^0)$$

$$f_2: U \rightarrow Adj = f(O^1) \quad f_2: U \rightarrow Subj = f(O^1) \quad f_2: U \rightarrow Transj = f(O^1)$$

$$f_3: U \rightarrow Adj = f(O^2) \quad f_3: U \rightarrow Subj = f(O^2) \quad f_3: U \rightarrow Transj = f(O^2)$$

$$f_1: E \rightarrow Adj = f(O^0) \quad f_1: E \rightarrow Subj = f(O^0) \quad f_1: E \rightarrow Transj = f(O^0)$$

$$f_2: E \rightarrow Adj = f(O^1) \quad f_2: E \rightarrow Subj = f(O^1) \quad f_2: E \rightarrow Transj = f(O^1)$$

$$f_3: E \rightarrow Adj = f(O^2) \quad f_3: E \rightarrow Subj = f(O^2) \quad f_3: E \rightarrow Transj = f(O^2)$$

#### 2.1.5. $R^* = [Ad, Adj, Ex]$ ,

$$f_1: S \rightarrow Ad = f(O^0) \quad f_1: S \rightarrow Adj = f(O^0) \quad f_1: S \rightarrow Ex = f(O^0)$$

$$f_2: S \rightarrow Ad = f(O^1) \quad f_2: S \rightarrow Adj = f(O^1) \quad f_2: S \rightarrow Ex = f(O^1)$$

$$f_3: S \rightarrow Ad = f(O^2) \quad f_3: S \rightarrow Adj = f(O^2) \quad f_3: S \rightarrow Ex = f(O^2)$$

$$\begin{array}{lll}
f_1: U \rightarrow Ad = f(O^0) & f_1: U \rightarrow Adj = f(O^0) & f_1: U \rightarrow Ex = f(O^0) \\
f_2: U \rightarrow Ad = f(O^1) & f_2: U \rightarrow Adj = f(O^1) & f_2: U \rightarrow Ex = f(O^1) \\
f_3: U \rightarrow Ad = f(O^2) & f_3: U \rightarrow Adj = f(O^2) & f_3: U \rightarrow Ex = f(O^2)
\end{array}$$

$$\begin{array}{lll}
f_1: E \rightarrow Ad = f(O^0) & f_1: E \rightarrow Adj = f(O^0) & f_1: E \rightarrow Ex = f(O^0) \\
f_2: E \rightarrow Ad = f(O^1) & f_2: E \rightarrow Adj = f(O^1) & f_2: E \rightarrow Ex = f(O^1) \\
f_3: E \rightarrow Ad = f(O^2) & f_3: E \rightarrow Adj = f(O^2) & f_3: E \rightarrow Ex = f(O^2)
\end{array}$$

2.1.6.  $P = (PP, PC, CP, CC)$ ,

$$\begin{array}{lll}
f_1: S \rightarrow PP = f(O^0) & f_1: S \rightarrow PC = f(O^0) & f_1: S \rightarrow CP = f(O^0) \\
f_2: S \rightarrow PP = f(O^1) & f_2: S \rightarrow PC = f(O^1) & f_2: S \rightarrow CP = f(O^1) \\
f_3: S \rightarrow PP = f(O^2) & f_3: S \rightarrow PC = f(O^2) & f_3: S \rightarrow CP = f(O^2)
\end{array}$$

$$\begin{array}{lll}
f_1: U \rightarrow PP = f(O^0) & f_1: U \rightarrow PC = f(O^0) & f_1: U \rightarrow CP = f(O^0) \\
f_2: U \rightarrow PP = f(O^1) & f_2: U \rightarrow PC = f(O^1) & f_2: U \rightarrow CP = f(O^1) \\
f_3: U \rightarrow PP = f(O^2) & f_3: U \rightarrow PC = f(O^2) & f_3: U \rightarrow CP = f(O^2)
\end{array}$$

$$\begin{array}{lll}
f_1: E \rightarrow PP = f(O^0) & f_1: E \rightarrow PC = f(O^0) & f_1: E \rightarrow CP = f(O^0) \\
f_2: E \rightarrow PP = f(O^1) & f_2: E \rightarrow PC = f(O^1) & f_2: E \rightarrow CP = f(O^1) \\
f_3: E \rightarrow PP = f(O^2) & f_3: E \rightarrow PC = f(O^2) & f_3: E \rightarrow CP = f(O^2)
\end{array}$$

$$f_1: S \rightarrow CC = f(O^0)$$

$$f_2: S \rightarrow CC = f(O^1)$$

$$f_3: S \rightarrow CC = f(O^2)$$

$$f_1: U \rightarrow CC = f(O^0)$$

$$f_2: U \rightarrow CC = f(O^1)$$

$$f_3: U \rightarrow CC = f(O^2)$$

$$f_1: E \rightarrow CC = f(O^0)$$

$$f_2: E \rightarrow CC = f(O^1)$$

$$f_3: E \rightarrow CC = f(O^2)$$

## 2.2. Ontische semiotische Funktionen

$$2.2.1. C = [X_\lambda, Y_Z, Z_\rho]$$

$$f_1: (2.1) \rightarrow X_\lambda = f(O^0) \quad f_1: (2.1) \rightarrow Y_Z = f(O^0)$$

$$f_1: (2.1) \rightarrow Z_\rho = f(O^0)$$

$$f_2: (2.1) \rightarrow X_\lambda = f(O^1) \quad f_2: (2.1) \rightarrow Y_Z = f(O^1)$$

$$f_2: (2.1) \rightarrow Z_\rho = f(O^1)$$

$$f_3: (2.1) \rightarrow X_\lambda = f(O^2) \quad f_3: (2.1) \rightarrow Y_Z = f(O^2)$$

$$f_3: (2.1) \rightarrow Z_\rho = f(O^2)$$

$$f_1: (2.2) \rightarrow X_\lambda = f(O^0) \quad f_1: (2.2) \rightarrow Y_Z = f(O^0)$$

$$f_1: (2.2) \rightarrow Z_\rho = f(O^0)$$

$$f_2: (2.2) \rightarrow X_\lambda = f(O^1) \quad f_2: (2.2) \rightarrow Y_Z = f(O^1)$$

$$f_2: (2.2) \rightarrow Z_\rho = f(O^1)$$

$$f_3: (2.2) \rightarrow X_\lambda = f(O^2) \quad f_3: (2.2) \rightarrow Y_Z = f(O^2)$$

$$f_3: (2.2) \rightarrow Z_\rho = f(O^2)$$

$$\begin{array}{lll}
f_1: (2.3) \rightarrow X_\lambda = f(0^0) & f_1: (2.3) \rightarrow Y_Z = f(0^0) & f_1: (2.3) \rightarrow Z_\rho = f(0^0) \\
f_2: (2.3) \rightarrow X_\lambda = f(0^1) & f_2: (2.3) \rightarrow Y_Z = f(0^1) & f_2: (2.3) \rightarrow Z_\rho = f(0^1) \\
f_3: (2.3) \rightarrow X_\lambda = f(0^2) & f_3: (2.3) \rightarrow Y_Z = f(0^2) & f_3: (2.3) \rightarrow Z_\rho = f(0^2)
\end{array}$$

### 2.2.2. L = [Ex, Ad, In]

$$\begin{array}{lll}
f_1: (2.1) \rightarrow Ex = f(0^0) & f_1: (2.1) \rightarrow Ad = f(0^0) & f_1: (2.1) \rightarrow In = f(0^0) \\
f_2: (2.1) \rightarrow Ex = f(0^1) & f_2: (2.1) \rightarrow Ad = f(0^1) & f_2: (2.1) \rightarrow In = f(0^1) \\
f_3: (2.1) \rightarrow Ex = f(0^2) & f_3: (2.1) \rightarrow Ad = f(0^2) & f_3: (2.1) \rightarrow In = f(0^2)
\end{array}$$

$$\begin{array}{lll}
f_1: (2.2) \rightarrow Ex = f(0^0) & f_1: (2.2) \rightarrow Ad = f(0^0) & f_1: (2.2) \rightarrow In = f(0^0) \\
f_2: (2.2) \rightarrow Ex = f(0^1) & f_2: (2.2) \rightarrow Ad = f(0^1) & f_2: (2.2) \rightarrow In = f(0^1) \\
f_3: (2.2) \rightarrow Ex = f(0^2) & f_3: (2.2) \rightarrow Ad = f(0^2) & f_3: (2.2) \rightarrow In = f(0^2)
\end{array}$$

$$\begin{array}{lll}
f_1: (2.3) \rightarrow Ex = f(0^0) & f_1: (2.3) \rightarrow Ad = f(0^0) & f_1: (2.3) \rightarrow In = f(0^0) \\
f_2: (2.3) \rightarrow Ex = f(0^1) & f_2: (2.3) \rightarrow Ad = f(0^1) & f_2: (2.3) \rightarrow In = f(0^1) \\
f_3: (2.3) \rightarrow Ex = f(0^2) & f_3: (2.3) \rightarrow Ad = f(0^2) & f_3: (2.3) \rightarrow In = f(0^2)
\end{array}$$

### 2.2.3. O = (Koo, Sub, Sup)

$$\begin{array}{lll}
f_1: (2.1) \rightarrow Koo = f(0^0) & f_1: (2.1) \rightarrow Sub = f(0^0) & f_1: (2.1) \rightarrow Sup = f(0^0) \\
f_2: (2.1) \rightarrow Koo = f(0^1) & f_2: (2.1) \rightarrow Sub = f(0^1) & f_2: (2.1) \rightarrow Sup = f(0^1) \\
f_3: (2.1) \rightarrow Koo = f(0^2) & f_3: (2.1) \rightarrow Sub = f(0^2) & f_3: (2.1) \rightarrow Sup = f(0^2)
\end{array}$$

$$f_1: (2.2) \rightarrow Koo = f(0^0) \quad f_1: (2.2) \rightarrow Sub = f(0^0) \quad f_1: (2.2) \rightarrow Sup = f(0^0)$$

$$f_2: (2.2) \rightarrow Koo = f(0^1) \quad f_2: (2.2) \rightarrow Sub = f(0^1) \quad f_2: (2.2) \rightarrow Sup = f(0^1)$$

$$f_3: (2.2) \rightarrow Koo = f(0^2) \quad f_3: (2.2) \rightarrow Sub = f(0^2) \quad f_3: (2.2) \rightarrow Sup = f(0^2)$$

$$f_1: (2.3) \rightarrow Koo = f(0^0) \quad f_1: (2.3) \rightarrow Sub = f(0^0) \quad f_1: (2.3) \rightarrow Sup = f(0^0)$$

$$f_2: (2.3) \rightarrow Koo = f(0^1) \quad f_2: (2.3) \rightarrow Sub = f(0^1) \quad f_2: (2.3) \rightarrow Sup = f(0^1)$$

$$f_3: (2.3) \rightarrow Koo = f(0^2) \quad f_3: (2.3) \rightarrow Sub = f(0^2) \quad f_3: (2.3) \rightarrow Sup = f(0^2)$$

#### 2.2.4. $Q = [\text{Adj}, \text{Subj}, \text{Transj}]$

$$f_1: (2.1) \rightarrow \text{Adj} = f(0^0) \quad f_1: (2.1) \rightarrow \text{Subj} = f(0^0) \quad f_1: (2.1) \rightarrow \text{Transj} = f(0^0)$$

$$f_2: (2.1) \rightarrow \text{Adj} = f(0^1) \quad f_2: (2.1) \rightarrow \text{Subj} = f(0^1) \quad f_2: (2.1) \rightarrow \text{Transj} = f(0^1)$$

$$f_3: (2.1) \rightarrow \text{Adj} = f(0^2) \quad f_3: (2.1) \rightarrow \text{Subj} = f(0^2) \quad f_3: (2.1) \rightarrow \text{Transj} = f(0^2)$$

$$f_1: (2.2) \rightarrow \text{Adj} = f(0^0) \quad f_1: (2.2) \rightarrow \text{Subj} = f(0^0) \quad f_1: (2.2) \rightarrow \text{Transj} = f(0^0)$$

$$f_2: (2.2) \rightarrow \text{Adj} = f(0^1) \quad f_2: (2.2) \rightarrow \text{Subj} = f(0^1) \quad f_2: (2.2) \rightarrow \text{Transj} = f(0^1)$$

$$f_3: (2.2) \rightarrow \text{Adj} = f(0^2) \quad f_3: (2.2) \rightarrow \text{Subj} = f(0^2) \quad f_3: (2.2) \rightarrow \text{Transj} = f(0^2)$$

$$f_1: (2.3) \rightarrow \text{Adj} = f(0^0) \quad f_1: (2.3) \rightarrow \text{Subj} = f(0^0) \quad f_1: (2.3) \rightarrow \text{Transj} = f(0^0)$$

$$f_2: (2.3) \rightarrow \text{Adj} = f(0^1) \quad f_2: (2.3) \rightarrow \text{Subj} = f(0^1) \quad f_2: (2.3) \rightarrow \text{Transj} = f(0^1)$$

$$f_3: (2.3) \rightarrow \text{Adj} = f(0^2) \quad f_3: (2.3) \rightarrow \text{Subj} = f(0^2) \quad f_3: (2.3) \rightarrow \text{Transj} = f(0^2)$$

2.2.5.  $R^* = [\text{Ad}, \text{Adj}, \text{Ex}]$ ,

$$f_1: (2.1) \rightarrow \text{Ad} = f(O^0) \quad f_1: (2.1) \rightarrow \text{Adj} = f(O^0) \quad f_1: (2.1) \rightarrow \text{Ex} = f(O^0)$$

$$f_2: (2.1) \rightarrow \text{Ad} = f(O^1) \quad f_2: (2.1) \rightarrow \text{Adj} = f(O^1) \quad f_2: (2.1) \rightarrow \text{Ex} = f(O^1)$$

$$f_3: (2.1) \rightarrow \text{Ad} = f(O^2) \quad f_3: (2.1) \rightarrow \text{Adj} = f(O^2) \quad f_3: (2.1) \rightarrow \text{Ex} = f(O^2)$$

$$f_1: (2.2) \rightarrow \text{Ad} = f(O^0) \quad f_1: (2.2) \rightarrow \text{Adj} = f(O^0) \quad f_1: (2.2) \rightarrow \text{Ex} = f(O^0)$$

$$f_2: (2.2) \rightarrow \text{Ad} = f(O^1) \quad f_2: (2.2) \rightarrow \text{Adj} = f(O^1) \quad f_2: (2.2) \rightarrow \text{Ex} = f(O^1)$$

$$f_3: (2.2) \rightarrow \text{Ad} = f(O^2) \quad f_3: (2.2) \rightarrow \text{Adj} = f(O^2) \quad f_3: (2.2) \rightarrow \text{Ex} = f(O^2)$$

$$f_1: (2.3) \rightarrow \text{Ad} = f(O^0) \quad f_1: (2.3) \rightarrow \text{Adj} = f(O^0) \quad f_1: (2.3) \rightarrow \text{Ex} = f(O^0)$$

$$f_2: (2.3) \rightarrow \text{Ad} = f(O^1) \quad f_2: (2.3) \rightarrow \text{Adj} = f(O^1) \quad f_2: (2.3) \rightarrow \text{Ex} = f(O^1)$$

$$f_3: (2.3) \rightarrow \text{Ad} = f(O^2) \quad f_3: (2.3) \rightarrow \text{Adj} = f(O^2) \quad f_3: (2.3) \rightarrow \text{Ex} = f(O^2)$$

2.2.6.  $P = (\text{PP}, \text{PC}, \text{CP}, \text{CC})$ ,

$$f_1: (2.1) \rightarrow \text{PP} = f(O^0) \quad f_1: (2.1) \rightarrow \text{PC} = f(O^0) \quad f_1: (2.1) \rightarrow \text{CP} = f(O^0)$$

$$f_2: (2.1) \rightarrow \text{PP} = f(O^1) \quad f_2: (2.1) \rightarrow \text{PC} = f(O^1) \quad f_2: (2.1) \rightarrow \text{CP} = f(O^1)$$

$$f_3: (2.1) \rightarrow \text{PP} = f(O^2) \quad f_3: (2.1) \rightarrow \text{PC} = f(O^2) \quad f_3: (2.1) \rightarrow \text{CP} = f(O^2)$$

$$f_1: (2.2) \rightarrow \text{PP} = f(O^0) \quad f_1: (2.2) \rightarrow \text{PC} = f(O^0) \quad f_1: (2.2) \rightarrow \text{CP} = f(O^0)$$

$$f_2: (2.2) \rightarrow \text{PP} = f(O^1) \quad f_2: (2.2) \rightarrow \text{PC} = f(O^1) \quad f_2: (2.2) \rightarrow \text{CP} = f(O^1)$$

$$f_3: (2.2) \rightarrow \text{PP} = f(O^2) \quad f_3: (2.2) \rightarrow \text{PC} = f(O^2) \quad f_3: (2.2) \rightarrow \text{CP} = f(O^2)$$

$$\begin{array}{lll}
 f_1: (2.3) \rightarrow PP = f(O^0) & f_1: (2.3) \rightarrow PC = f(O^0) & f_1: (2.3) \rightarrow CP = f(O^0) \\
 f_2: (2.3) \rightarrow PP = f(O^1) & f_2: (2.3) \rightarrow PC = f(O^1) & f_2: (2.3) \rightarrow CP = f(O^1) \\
 f_3: (2.3) \rightarrow PP = f(O^2) & f_3: (2.3) \rightarrow PC = f(O^2) & f_3: (2.3) \rightarrow CP = f(O^2)
 \end{array}$$

$$\begin{array}{l}
 f_1: (2.1) \rightarrow CC = f(O^0) \\
 f_2: (2.1) \rightarrow CC = f(O^1) \\
 f_3: (2.1) \rightarrow CC = f(O^2)
 \end{array}$$

$$\begin{array}{l}
 f_1: (2.2) \rightarrow CC = f(O^0) \\
 f_2: (2.2) \rightarrow CC = f(O^1) \\
 f_3: (2.2) \rightarrow CC = f(O^2)
 \end{array}$$

$$\begin{array}{l}
 f_1: (2.3) \rightarrow CC = f(O^0) \\
 f_2: (2.3) \rightarrow CC = f(O^1) \\
 f_3: (2.3) \rightarrow CC = f(O^2)
 \end{array}$$

## Literatur

Toth, Alfred, Objekttheoretische Invarianten II. In: Electronic Journal for Mathematical Semiotics, 2013

Toth, Alfred, Ontische Grammatik der Stadt Paris. Tucson (AZ) 2016 (2016a)

Toth, Alfred, Grundlegung einer ontisch-raumsemiotischen Modelltheorie. Tucson (AZ) 2016 (2016b)

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