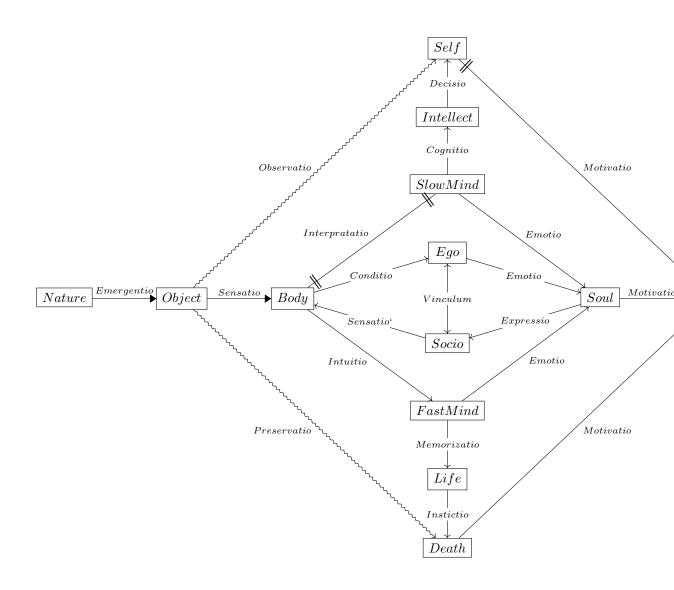
## 1 Notation Versions

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	110		VCISIOII					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Variable	Interval	IEM head	[restra	$in_1$ ]: A	rrow	$: [restrain_1]$	Arrow end
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	m	$[0,\infty)$	$\rightarrow$	norn	nal	>	power-set	$\rightarrow$
	n	$[1,\infty)$	+	surjec	tive >	or	non-empty	<b>→</b> ▷
Variable Interval IEM head $[restrain_1]$ : Arrow : $[restrain_1]$ Arrow $m = [0, \infty)$	1	[1,1]		bijective		0	functional	<i>→</i> >
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ε	[0, 1]	<del></del>	inject	tive	0	partial	→⊳
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Varial	ole Inter	val IEM h	ead $[res]$	$train_1]:$	Arrov	$v : [restrain_1]$	] Arrow en
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	m	$[0, \infty$	o) —	< n	ormal	$\triangleright$ or	power-set	$\rightarrow$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	n	$[1, \infty$	o) <u></u>	∠ su	rjective	•	non-empty	<b>→</b>
Notation       IEM $[restrain_1]$ : $: [restrain_1]$ $m:m$ Omegan of the power set $n:m$ Omegan of the power set $n:m$ Omegan of the power set $n:m$ Omegan of the power set $m:n$ <td>1</td> <td>[1, 1]</td> <td>· []</td> <td>_ bi</td> <td>jective</td> <td>0</td> <td>functional</td> <td><i>→</i>&gt;</td>	1	[1, 1]	· []	_ bi	jective	0	functional	<i>→</i> >
m:m $m:m$ <th< td=""><td><math>\varepsilon</math></td><td>[0, 1]</td><td>L] ————————————————————————————————————</td><td>_ in</td><td>jective</td><td>0</td><td>partial</td><td>→⊳</td></th<>	$\varepsilon$	[0, 1]	L] ————————————————————————————————————	_ in	jective	0	partial	→⊳
$n:m$ $\Rightarrow$ surjective power-set $1:m$ $\Rightarrow$ bijective power-set $e:m$ $\Rightarrow$ injective power-set $m:n$ $\Rightarrow$ normal non-empty $n:n$ $\Rightarrow$ bijective non-empty $1:n$ $\Rightarrow$ bijective non-empty $e:n$ $\Rightarrow$ injective non-empty $m:1$ $\Rightarrow$ normal functional $n:1$ $\Rightarrow$ surjective functional $n:1$ $\Rightarrow$ bijective functional $n:1$ $\Rightarrow$ partial $n:e$ $\Rightarrow$ normal partial $n:e$ surjective power-set $n:n$ $\Rightarrow$ surjective power-set $n:n$ $\Rightarrow$ partial $n:e$ $\Rightarrow$ surjective partial	Notat	ion IE	EM [res	$train_1]:$	: [restre	$ain_1]$		
$1: m \qquad $	m:m	<b>→</b>	n	ormal	power-	-set		
$\varepsilon: m \qquad $	n:m	<del>}</del>	sur	rjective	power-	set		
m:n surjective non-empty $1:n$ bijective non-empty $x:n$ injective non-empty $x:n$ injective non-empty $x:n$ injective non-empty $x:n$ injective functional $x:n$ bijective functional	1:m	+	—— bi	jective	power-	set		
$n:n$ $\Rightarrow$ surjective non-empty $1:n$ $\Rightarrow$ bijective non-empty $\varepsilon:n$ injective non-empty $m:1$ $\Rightarrow$ normal functional $n:1$ $\Rightarrow$ surjective functional $1:1$ $\Rightarrow$ bijective functional $\varepsilon:1$ $\Rightarrow$ injective functional $\varepsilon:1$ $\Rightarrow$ partial $m:\varepsilon$ $\Rightarrow$ normal partial $n:\varepsilon$ surjective partial	$\varepsilon:m$	+	——— in	jective	power-	set		
$1:n$ $\downarrow$ bijective non-empty $\varepsilon:n$ injective non-empty $m:1$ $\downarrow$ normal functional $n:1$ $\downarrow$ surjective functional $1:1$ $\downarrow$ bijective functional $\varepsilon:1$ $\downarrow$ injective functional $\varepsilon:1$	m:n	$\Rightarrow$	n n	ormal	non-em	npty		
$\varepsilon: n \qquad $	n:n	$\rightarrow$	- sur	rjective	non-em	pty		
$m:1$ normal functional $n:1$ surjective functional $1:1$ bijective functional $\varepsilon:1$ injective functional $m:\varepsilon$ normal partial $n:\varepsilon$ surjective partial	1:n	+	bi	jective	non-em	npty		
$n:1$ surjective functional $1:1$ bijective functional $\varepsilon:1$ injective functional $m:\varepsilon$ normal partial $n:\varepsilon$ surjective partial	$\varepsilon:n$	+0-	in in	jective	non-em	npty		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	m:1	<del>&gt;&gt;</del>	n	ormal	function	nal		
$\varepsilon:1$ injective functional $m:\varepsilon$ normal partial $n:\varepsilon$ surjective partial	n:1	$\rightarrow$	su	rjective	function	onal		
$m: \varepsilon$ normal partial $n: \varepsilon$ surjective partial	1:1	#	bi	jective	function	onal		
$n: \varepsilon$ surjective partial	$\varepsilon:1$	+0-	in	jective	function	onal		
	$m:\varepsilon$	$\Rightarrow$	n	ormal	parti	al		
$1:\varepsilon$ bijective partial	$n: \varepsilon$	$\rightarrow$	sur	rjective	parti	al		
	$1:\varepsilon$	+	—⊖— bi	jective	parti	al		

partial

injective

 $\varepsilon : \varepsilon$ 



 $\longrightarrow$ 

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 $\leftrightarrow$ 

**—**€

**→** 

 $\leftarrow$ 

 $\rightarrow$ 

 $\leftarrow$ P

 $\leftrightarrow$  (alternative)

 $\leftarrow$  (alternative)

 $\rightarrow$