

DIAGRAMMES

CLAUDE HENRY
CHRISTIAN LAIR
Atlas des Figures

Diagrammes, tome 59-60 (2008), p. 1-36

http://www.numdam.org/item?id=DIA_2008__59-60__A2_0

© Université Paris 7, UER math., 2008, tous droits réservés.

L'accès aux archives de la revue « Diagrammes » implique l'accord avec les conditions générales d'utilisation (<http://www.numdam.org/conditions>). Toute utilisation commerciale ou impression systématique est constitutive d'une infraction pénale. Toute copie ou impression de ce fichier doit contenir la présente mention de copyright.

NUMDAM

Article numérisé dans le cadre du programme
Numérisation de documents anciens mathématiques
<http://www.numdam.org/>

**SUR
CERTAINES SOUS-CATEGORIES NON PLEINES
DES
CATEGORIES DE MODELES**

*Fascicule 2 :
Atlas des Figures*

Claude Henry

(maxchen@free.fr)

et

Christian Lair

(lairchrist@aol.com)

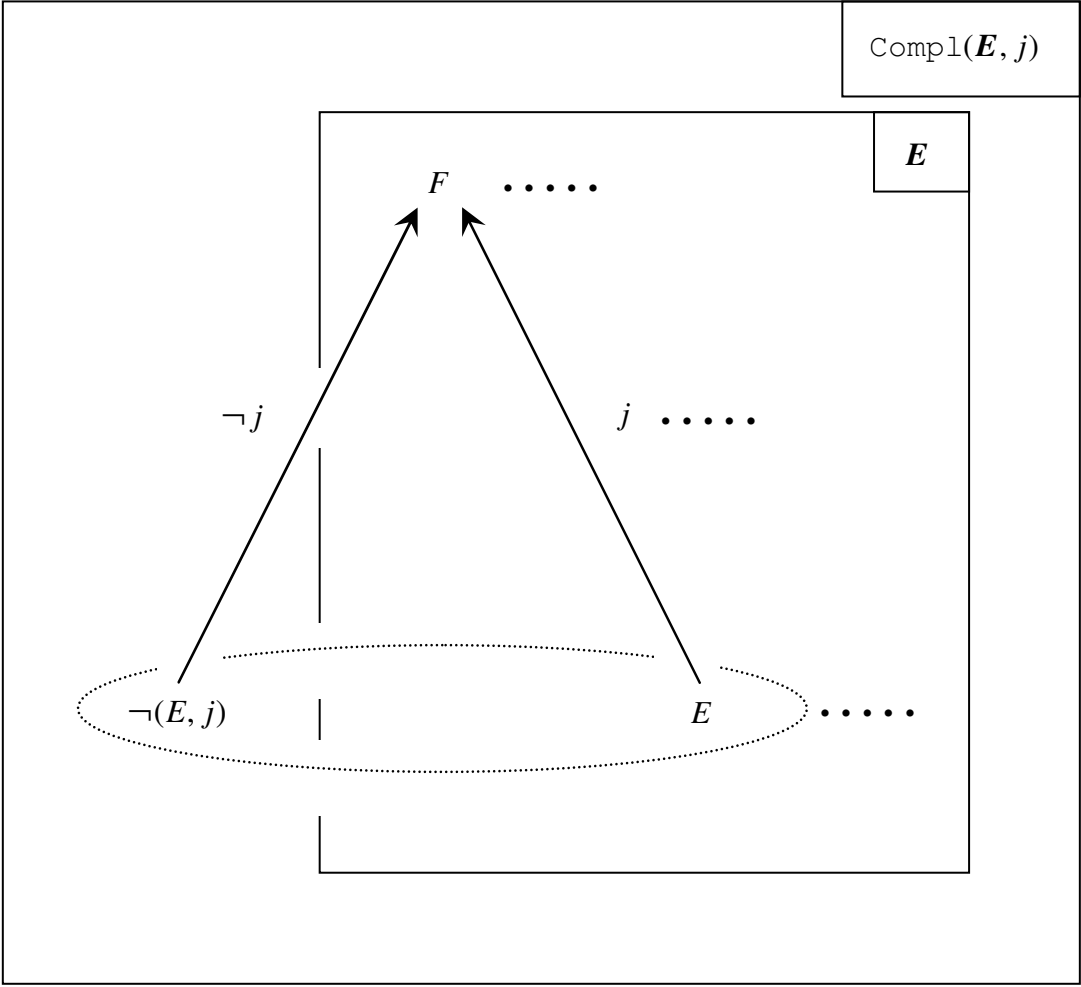


Figure 1

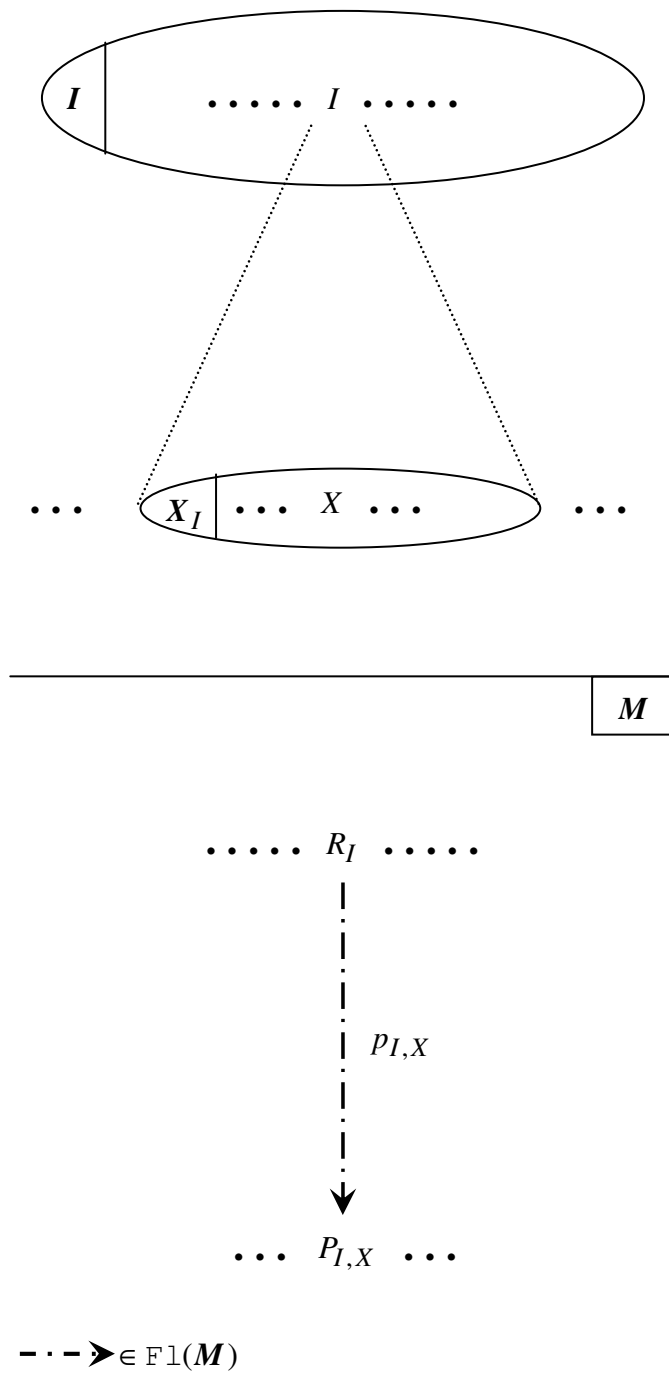
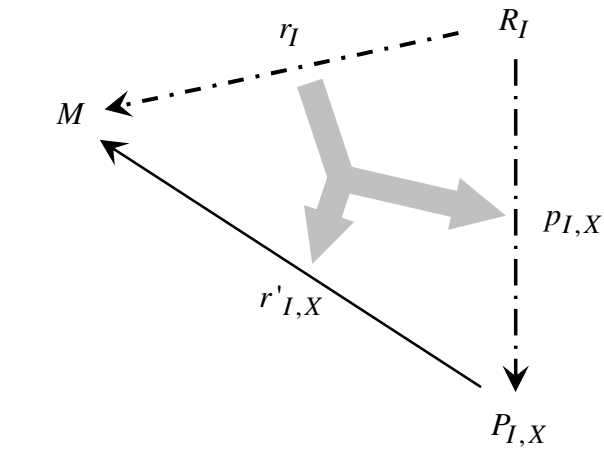


Figure 2

M, M'



$\dashrightarrow \in \text{Fl}(M)$
 $\longrightarrow \in \text{Fl}(M')$

Résol. 1

$$\begin{aligned}
 \forall M \in \text{Ob}(M') = \text{Ob}(M) \quad \forall I \in I \quad \forall r_I : R_I \rightarrow M \in \text{Fl}(M) \\
 \exists X \in X_I \quad \exists r'_{I,X} : P_{I,X} \rightarrow M \in \text{Fl}(M') \\
 r'_{I,X} \cdot p_{I,X} = r_I
 \end{aligned}$$

Figure 3



Résol. 2

$$\forall M \in \text{Ob}(\mathbf{M}) \quad \forall N \in \text{Ob}(\mathbf{M}) \quad \forall m : M \rightarrow N \in \text{Fl}(\mathbf{M})$$

$$\forall I \in \mathbf{I} \quad \forall r_I : R_I \rightarrow M \in \text{Fl}(\mathbf{M})$$

$$r_I : R_I \rightarrow M \notin \text{Fl}(\mathbf{M}') \Rightarrow m.r_I \notin \text{Fl}(\mathbf{M}')$$

Résol. 2

$$\forall M \in \text{Ob}(\mathbf{M}) \quad \forall N \in \text{Ob}(\mathbf{M}) \quad \forall m : M \rightarrow N \in \text{Fl}(\mathbf{M})$$

$$\forall I \in \mathbf{I} \quad \forall r_I : R_I \rightarrow M \in \text{Fl}(\mathbf{M})$$

$$r_I : R_I \rightarrow M \notin \text{Fl}(\mathbf{M}') \Rightarrow m.r_I \notin \text{Fl}(\mathbf{M}')$$

Résol. 2

$$\forall M \in \text{Ob}(\mathbf{M}) \quad \forall N \in \text{Ob}(\mathbf{M}) \quad \forall m : M \rightarrow N \in \text{Fl}(\mathbf{M})$$

$$\forall I \in \mathbf{I} \quad \forall r_I : R_I \rightarrow M \in \text{Fl}(\mathbf{M})$$

$$r_I : R_I \rightarrow M \notin \text{Fl}(\mathbf{M}') \Rightarrow m.r_I \notin \text{Fl}(\mathbf{M}')$$

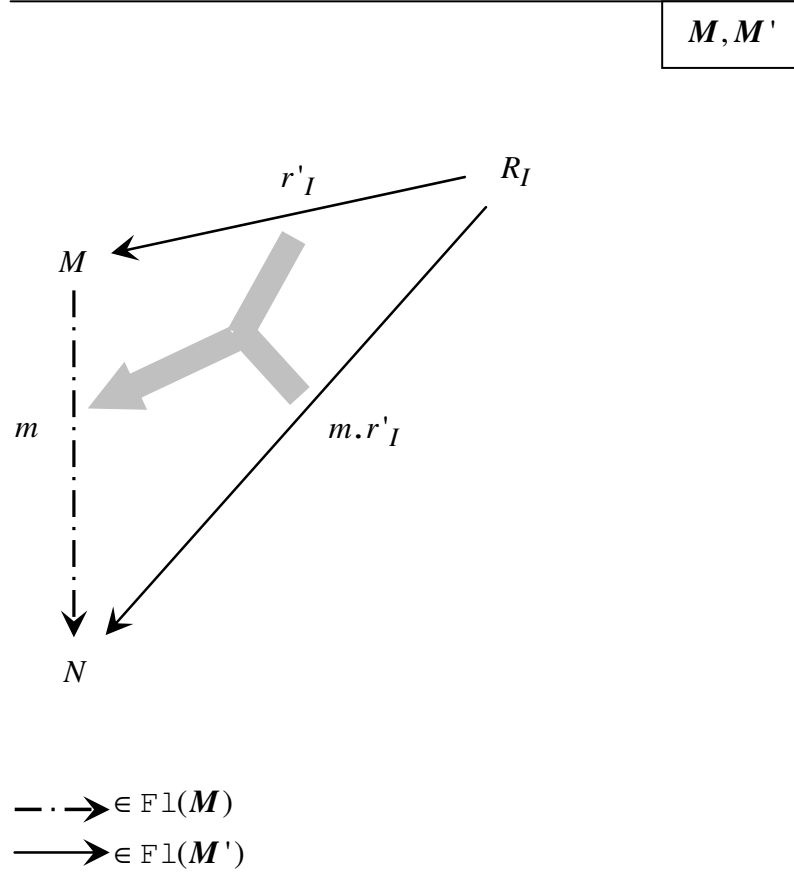
Résol. 2

$$\forall M \in \text{Ob}(\mathbf{M}) \quad \forall N \in \text{Ob}(\mathbf{M}) \quad \forall m : M \rightarrow N \in \text{Fl}(\mathbf{M})$$

$$\forall I \in \mathbf{I} \quad \forall r_I : R_I \rightarrow M \in \text{Fl}(\mathbf{M})$$

$$r_I : R_I \rightarrow M \notin \text{Fl}(\mathbf{M}') \Rightarrow m.r_I \notin \text{Fl}(\mathbf{M}')$$

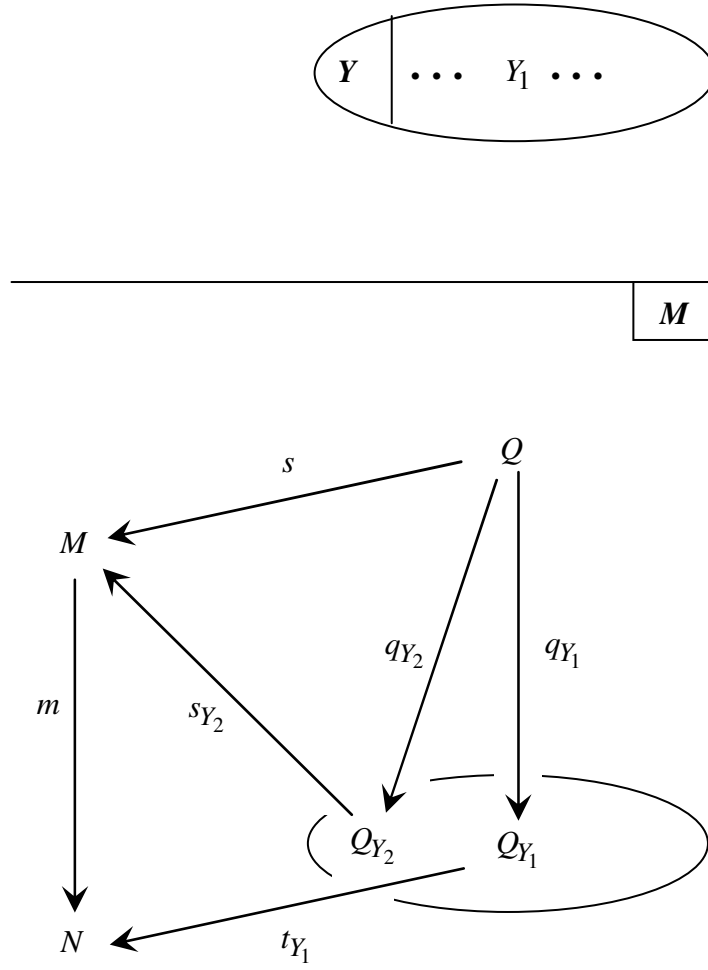
Figure 4



Résol. 3

$$\begin{aligned}
 & \forall M \in \text{Ob}(\mathbf{M}) \quad \forall N \in \text{Ob}(\mathbf{M}) \quad \forall m : M \rightarrow N \in \text{Fl}(\mathbf{M}) \\
 & [\forall I \in \mathbf{I} \quad \forall r'_I : R_I \rightarrow M \in \text{Fl}(\mathbf{M}') \quad m \cdot r'_I : R_I \rightarrow N \in \text{Fl}(\mathbf{M}')] \\
 & \quad \quad \quad \Rightarrow \\
 & [m : M \rightarrow N \in \text{Fl}(\mathbf{M}')]
 \end{aligned}$$

Figure 5



Equil. 1

$$\begin{aligned}
 & \forall M \in \text{Ob}(\mathbf{M}) \quad \forall N \in \text{Ob}(\mathbf{M}) \quad \forall m : M \rightarrow N \in \text{Fl}(\mathbf{M}) \\
 & \forall q = (q_Y : Q \rightarrow Q_Y \in \text{Fl}(\mathbf{M})) \in \mathbf{q} \quad \forall s : Q \rightarrow M \in \text{Fl}(\mathbf{M}) \\
 & \quad (\exists Y_1 \in \mathbf{Y} \quad \exists t_{Y_1} : Q_{Y_1} \rightarrow N \in \text{Fl}(\mathbf{M}) \quad m \cdot s = t_{Y_1} \cdot q_{Y_1}) \\
 & \quad \Rightarrow \\
 & \quad (\exists Y_2 \in \mathbf{Y} \quad \exists s_{Y_2} : Q_{Y_2} \rightarrow \bar{M} \in \text{Fl}(\mathbf{M}) \quad s = s_{Y_2} \cdot q_{Y_2})
 \end{aligned}$$

Figure 6

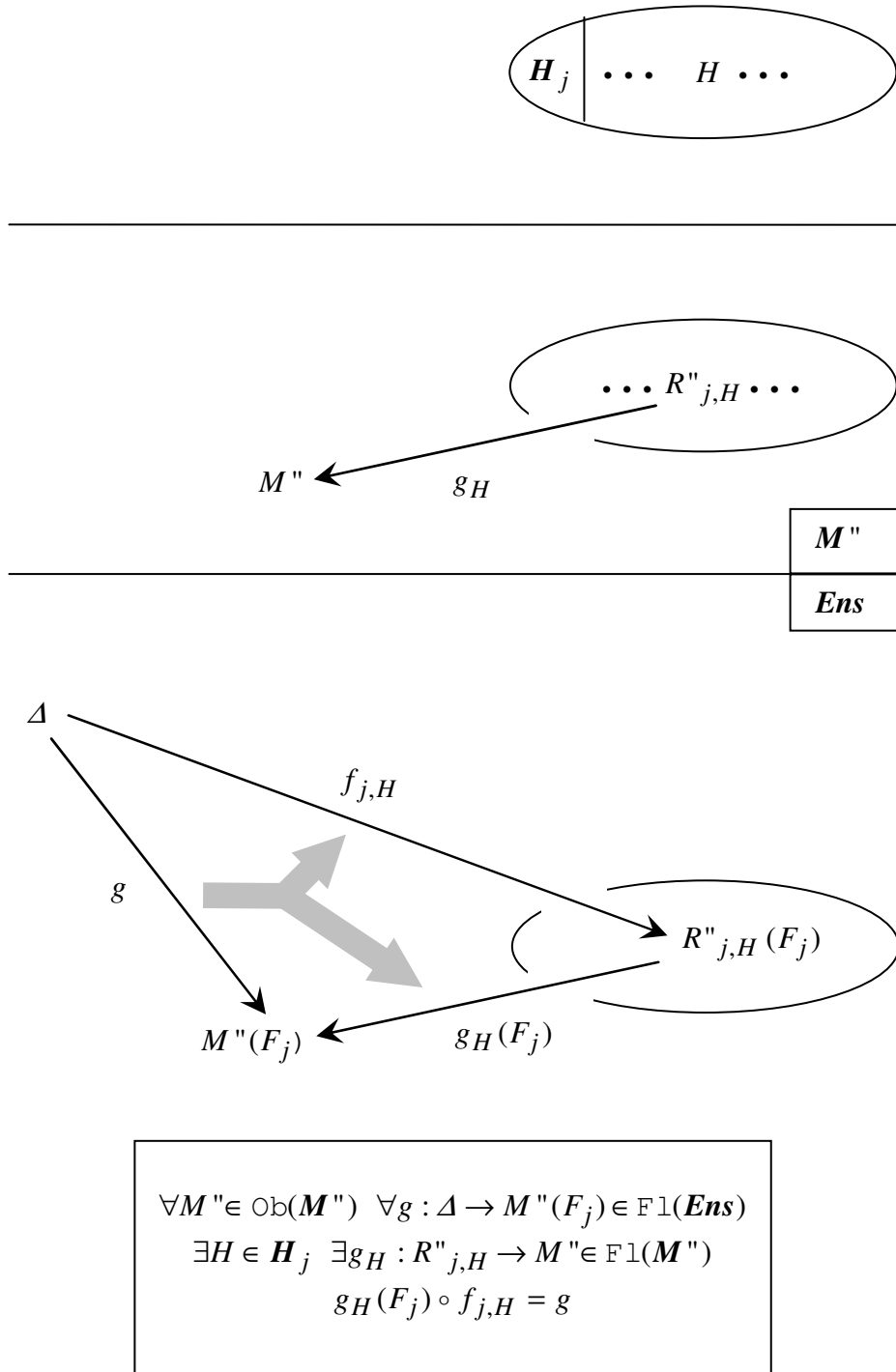


Figure 7

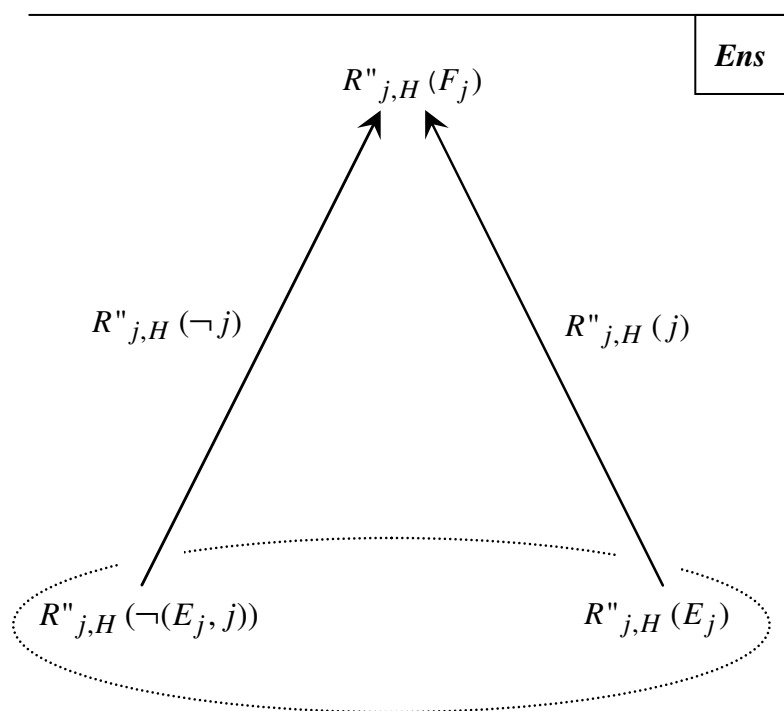


Figure 8

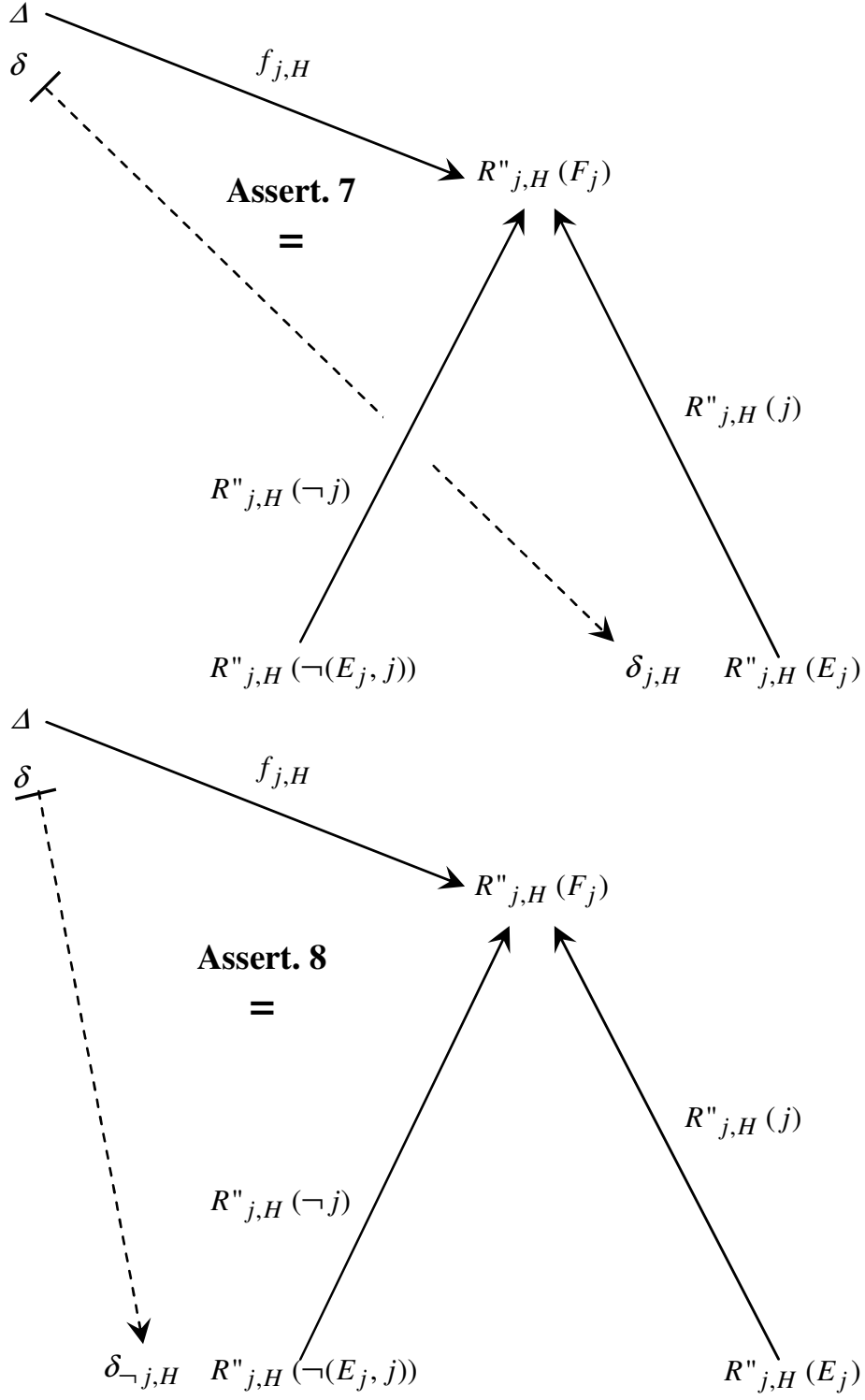


Figure 9

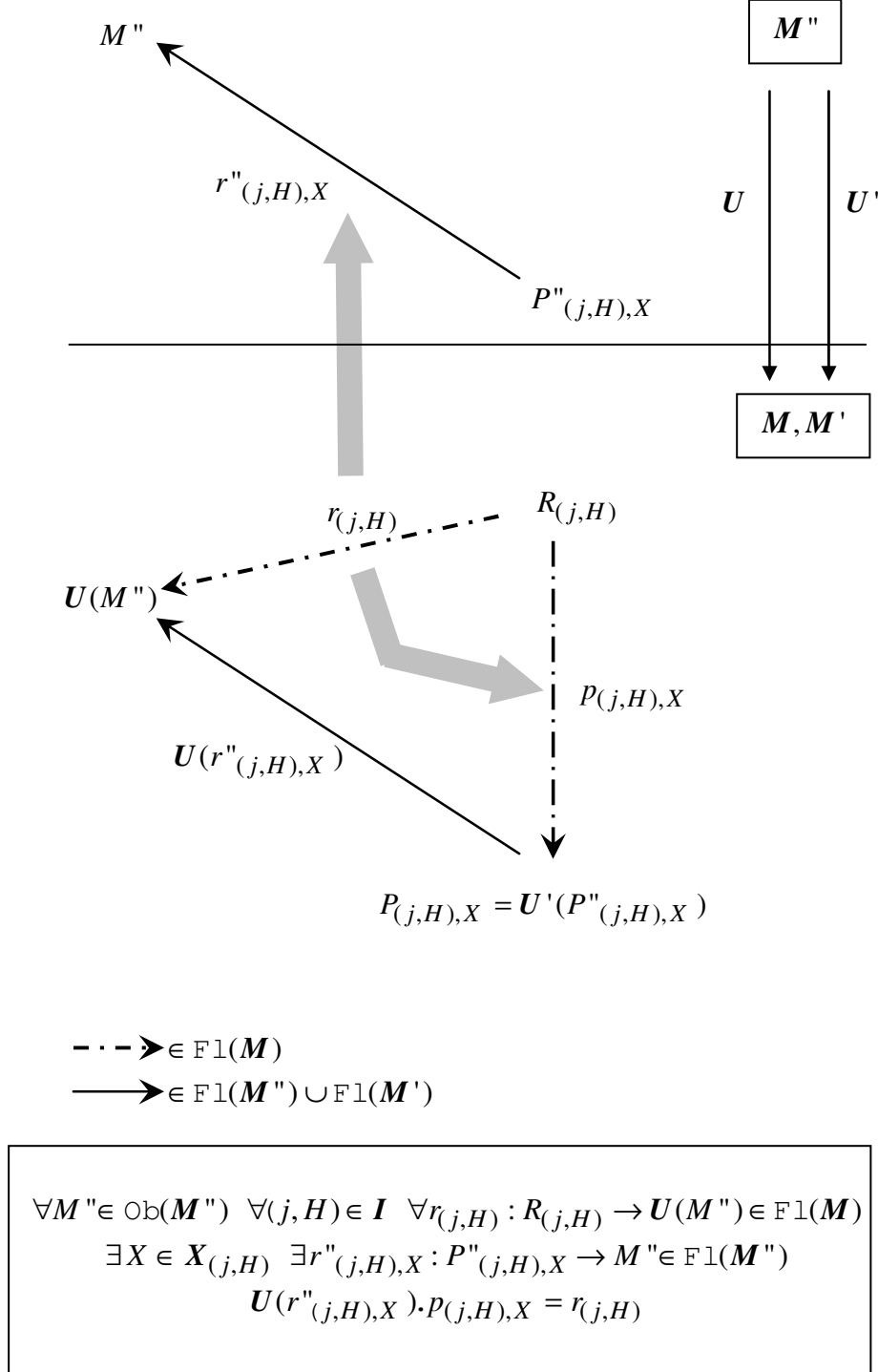
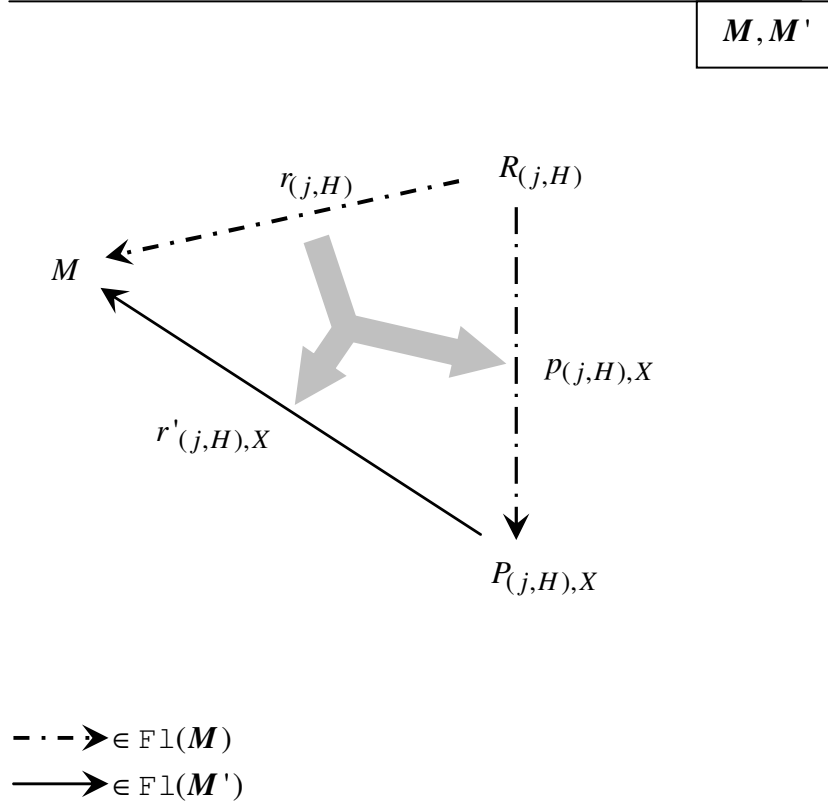


Figure 10



$$\begin{aligned}
& \forall M \in \mathbf{Ob}(M') = \mathbf{Ob}(M) \quad \forall (j, H) \in \mathbf{I} \quad \forall r_{(j,H)} : R_{(j,H)} \rightarrow M \in \mathbf{Fl}(M) \\
& \quad \exists X \in \mathbf{X}_{(j,H)} \quad \exists r'_{(j,H),X} : P_{(j,H),X} \rightarrow M \in \mathbf{Fl}(M') \\
& \quad \quad r'_{(j,H),X} \cdot p_{(j,H),X} = r_{(j,H)}
\end{aligned}$$

Figure 11

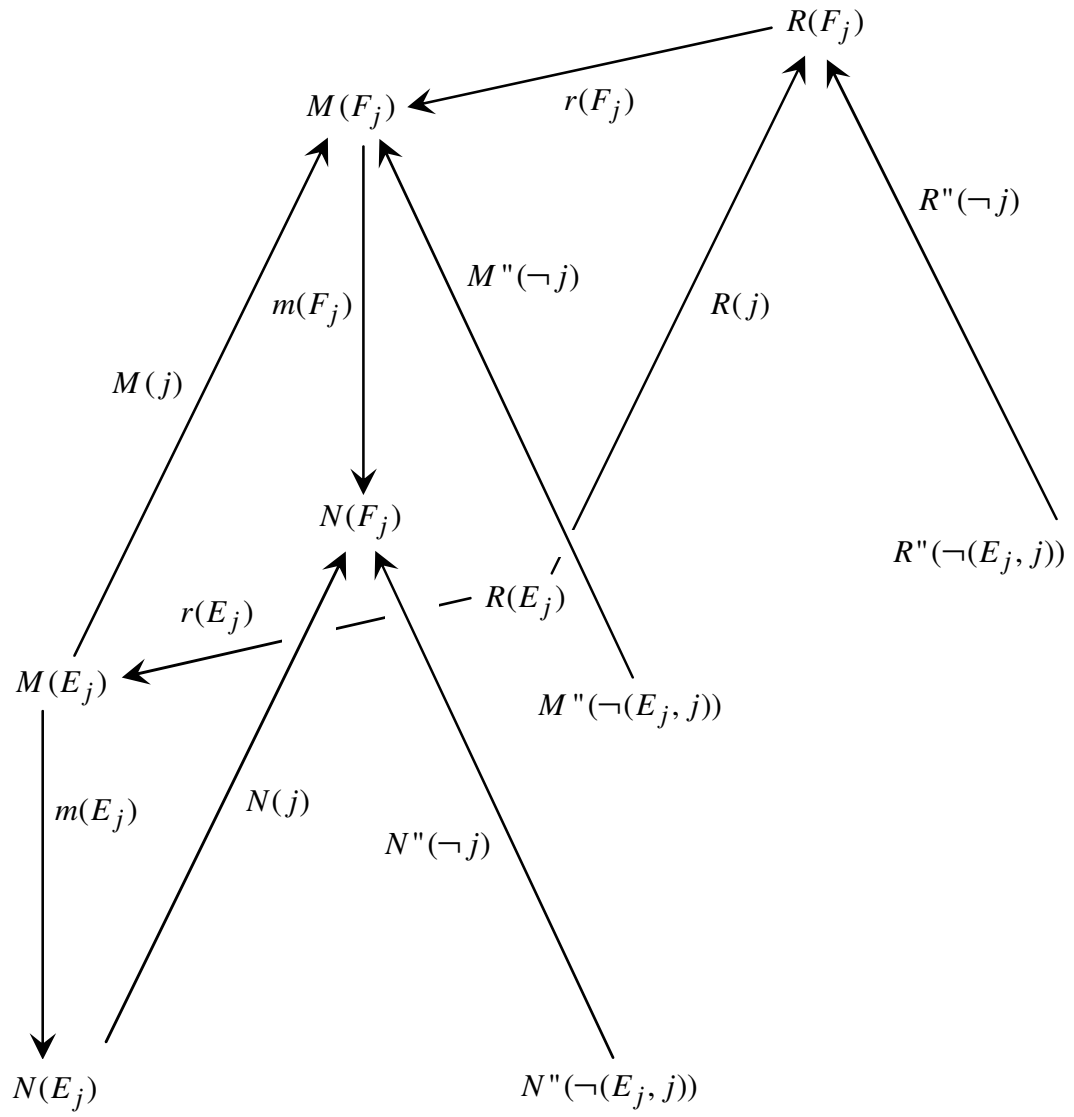


Figure 12

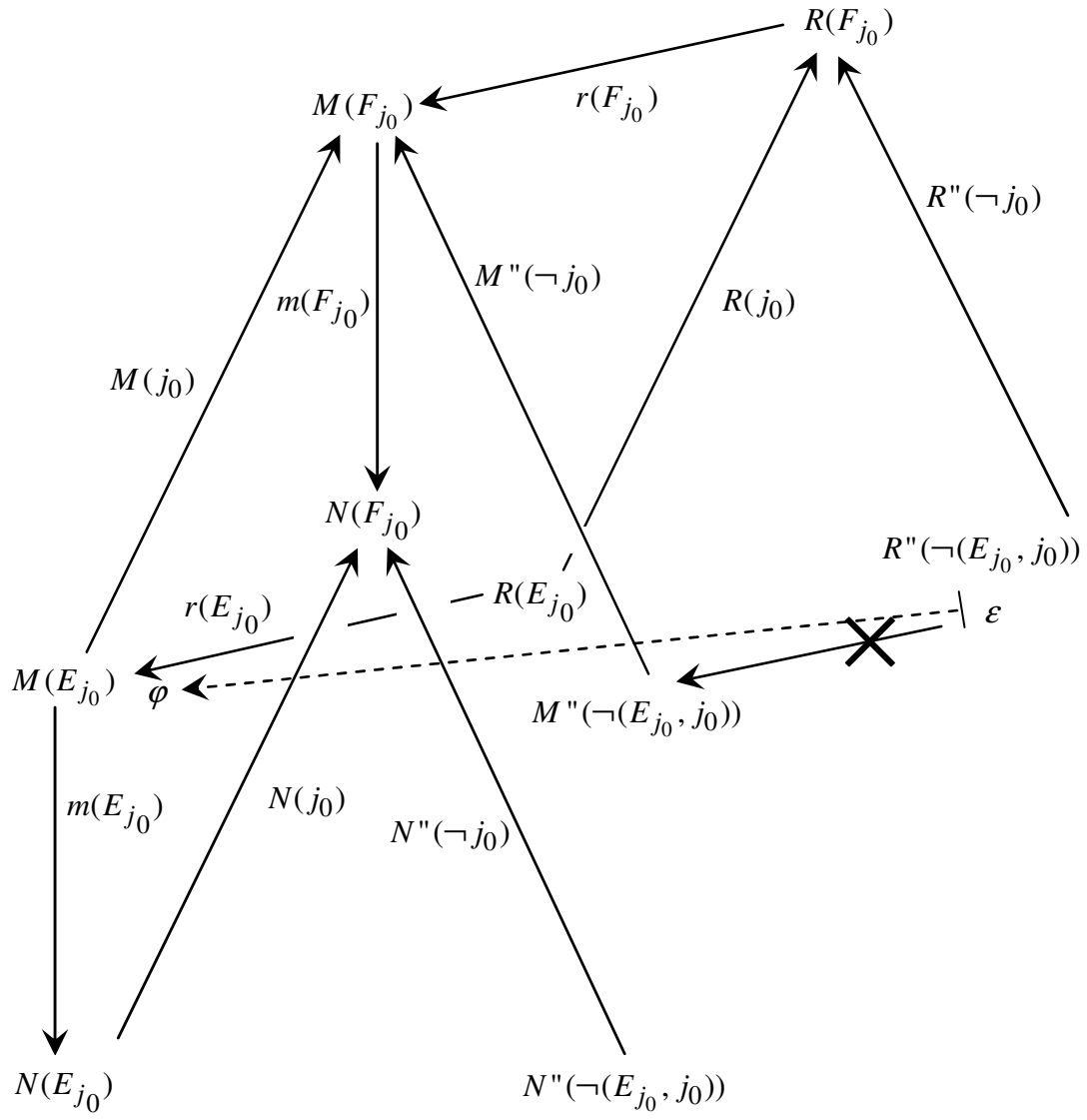


Figure 14

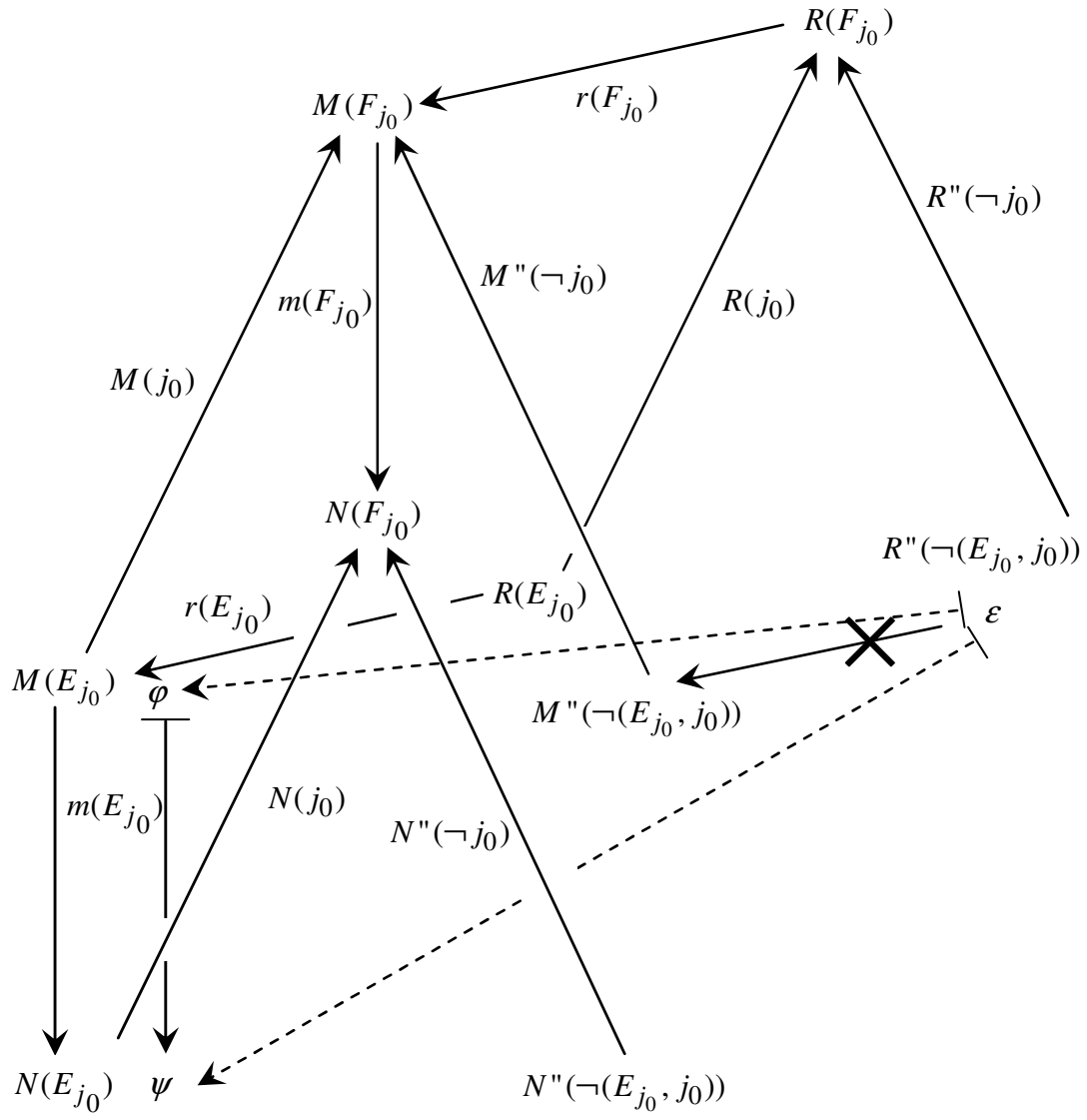


Figure 15

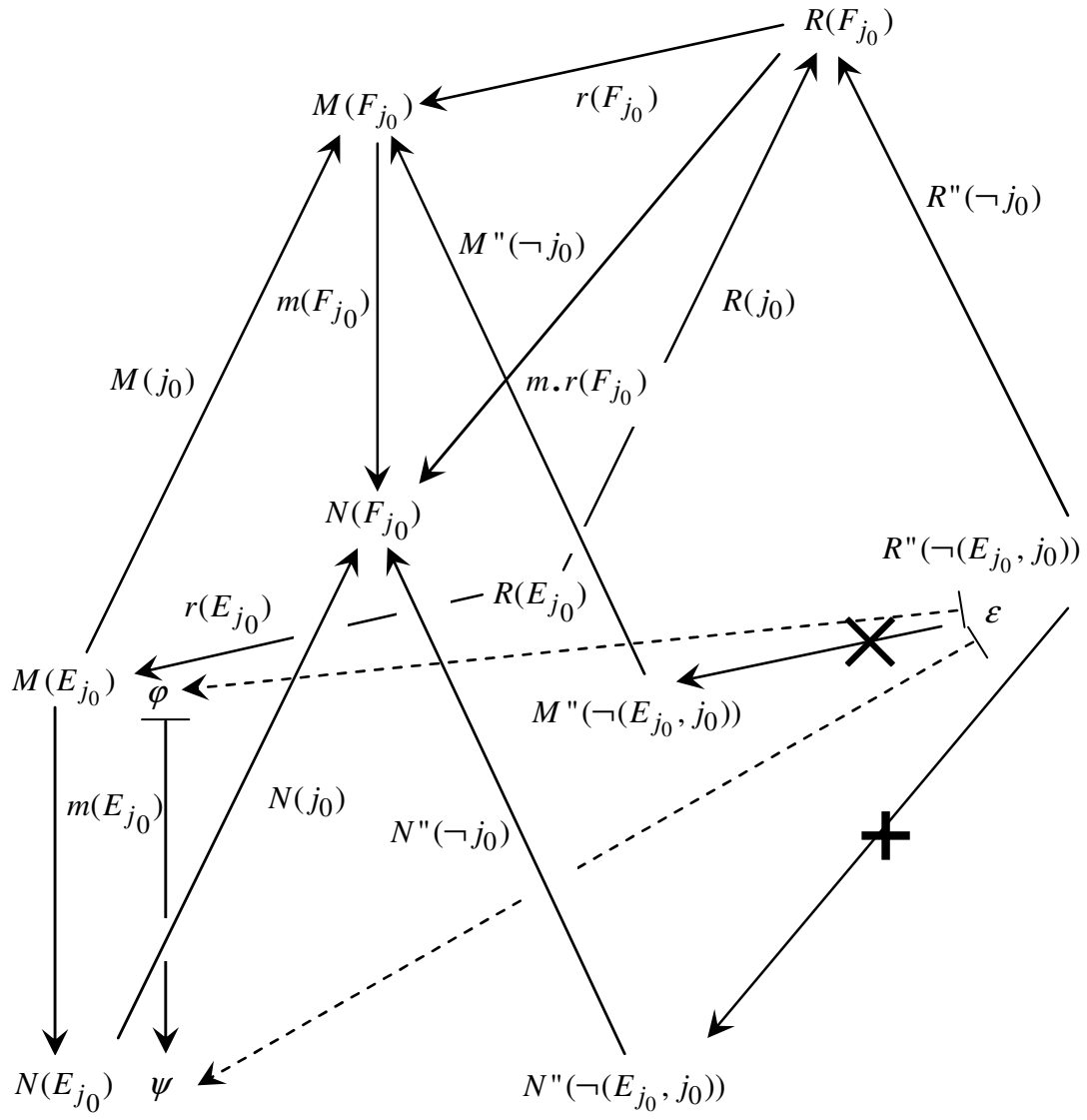


Figure 16

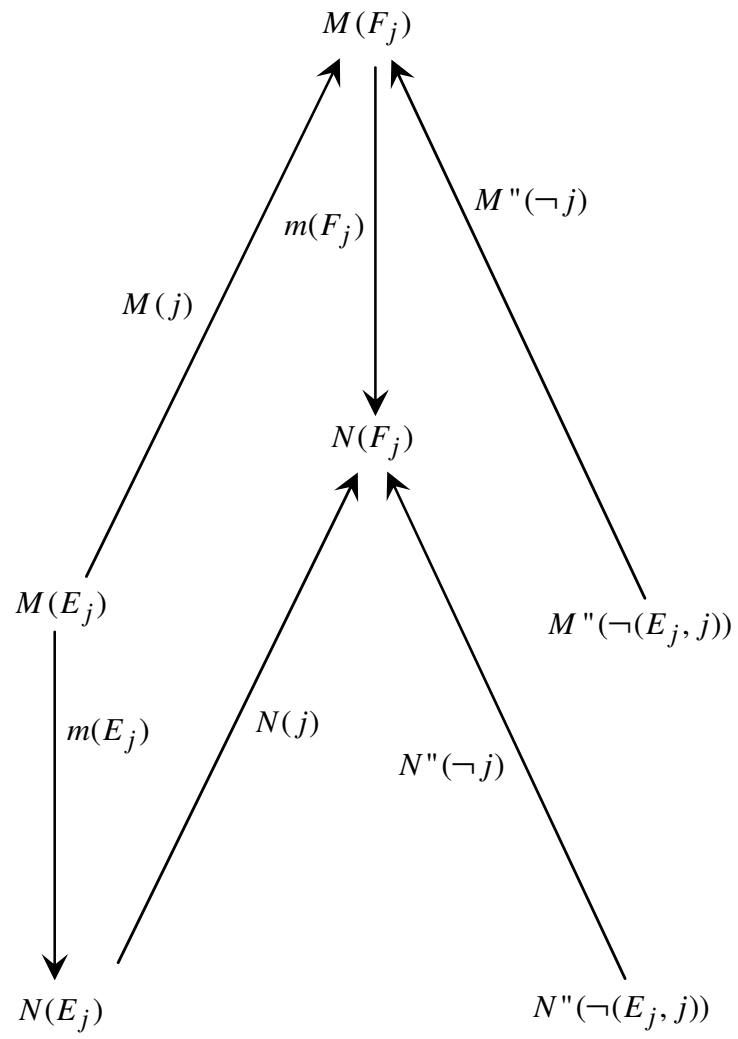


Figure 17

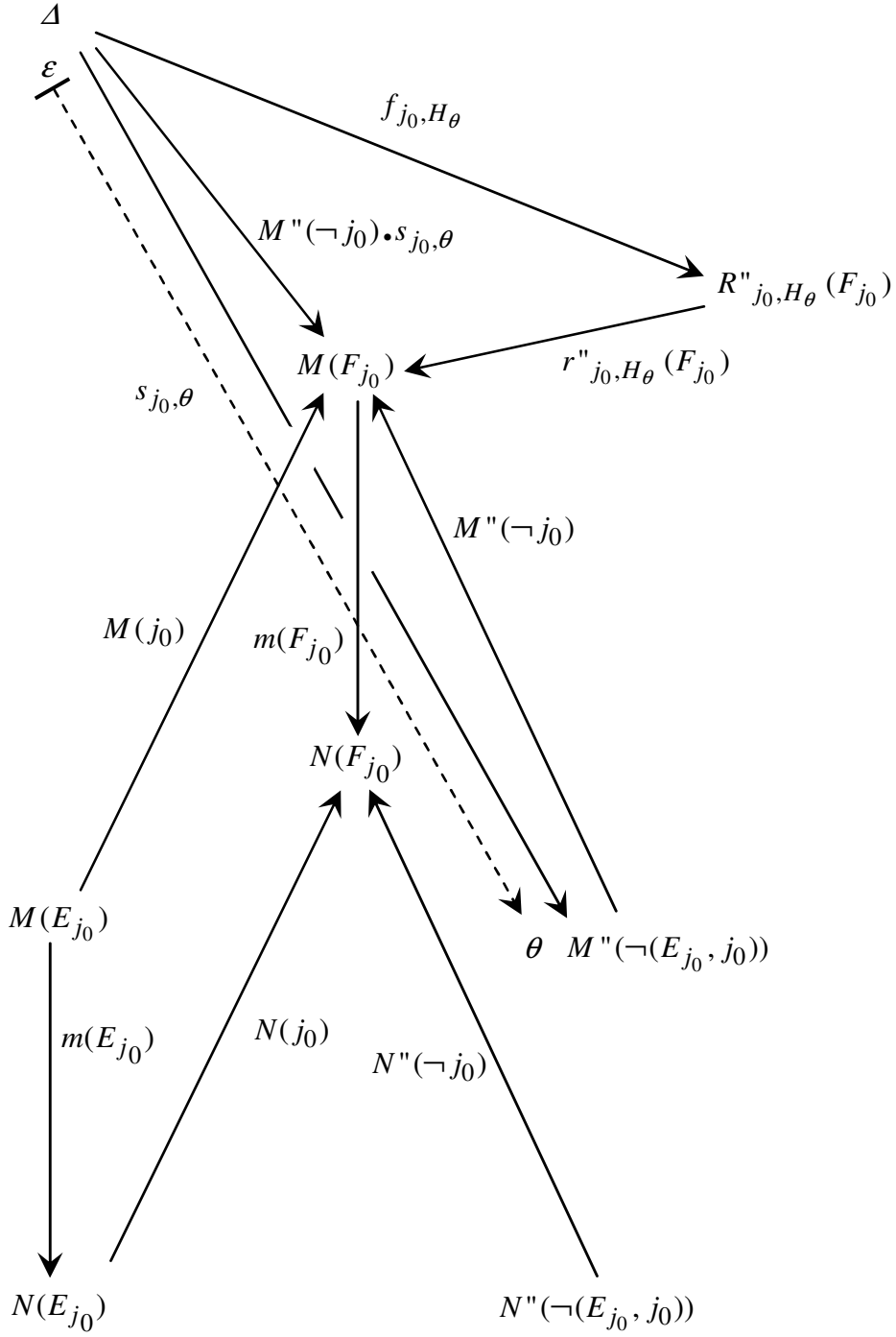


Figure 18

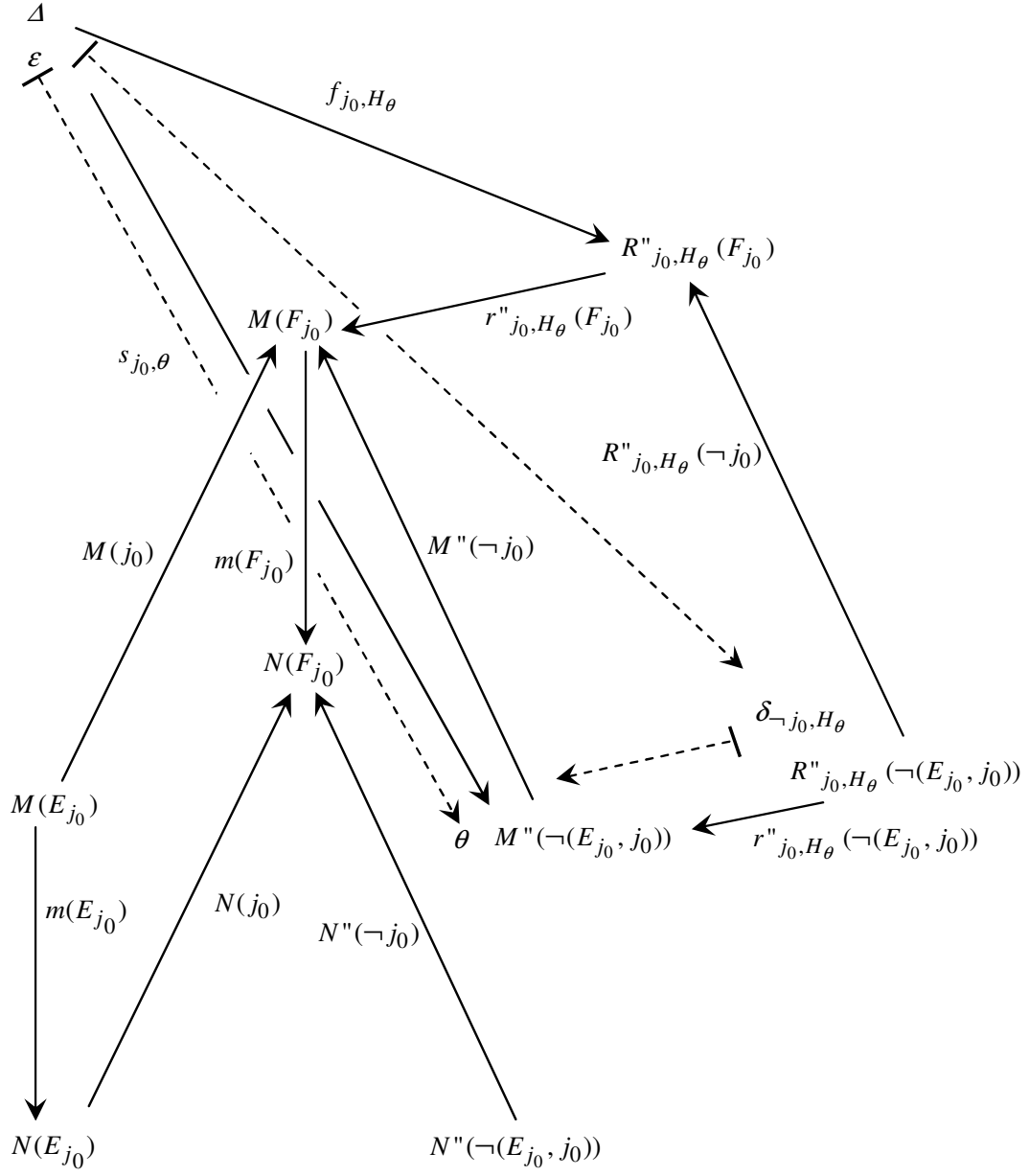


Figure 19

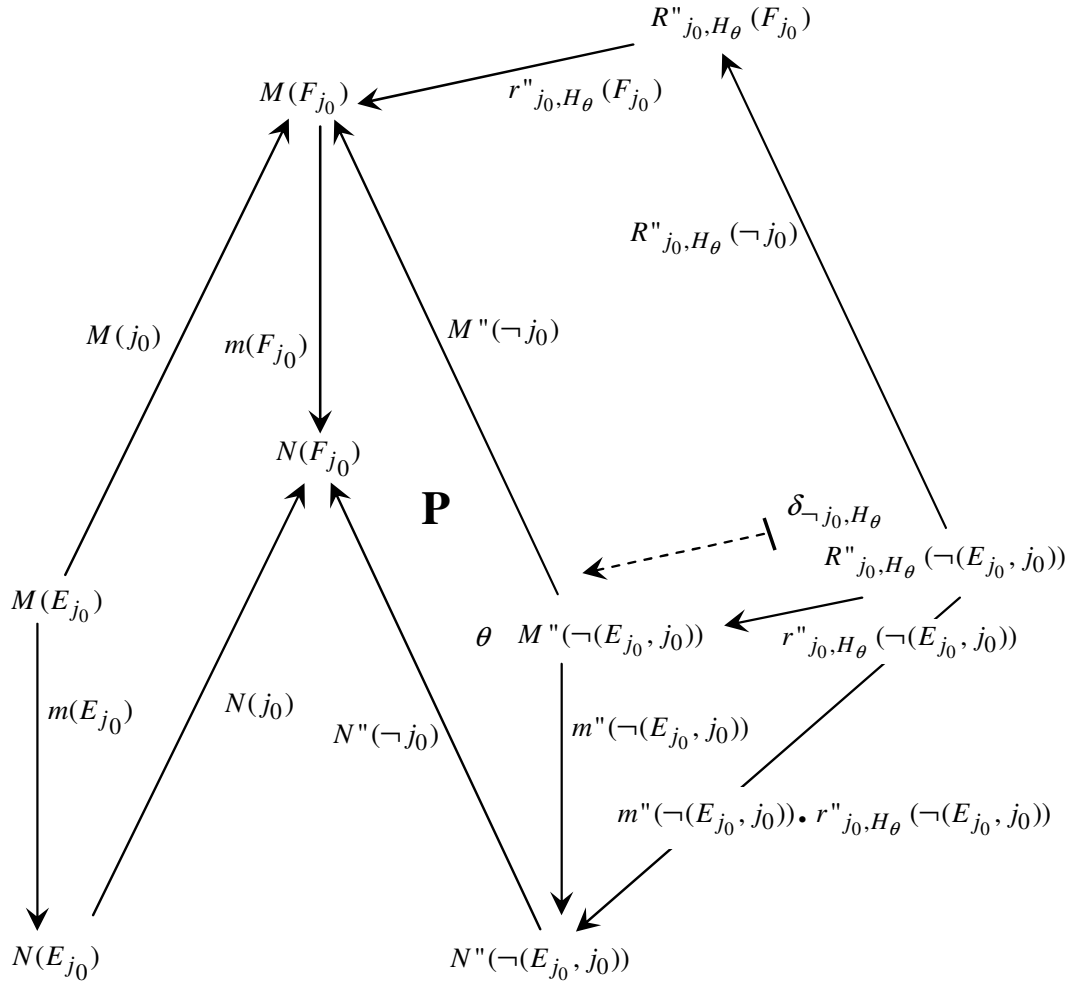


Figure 20

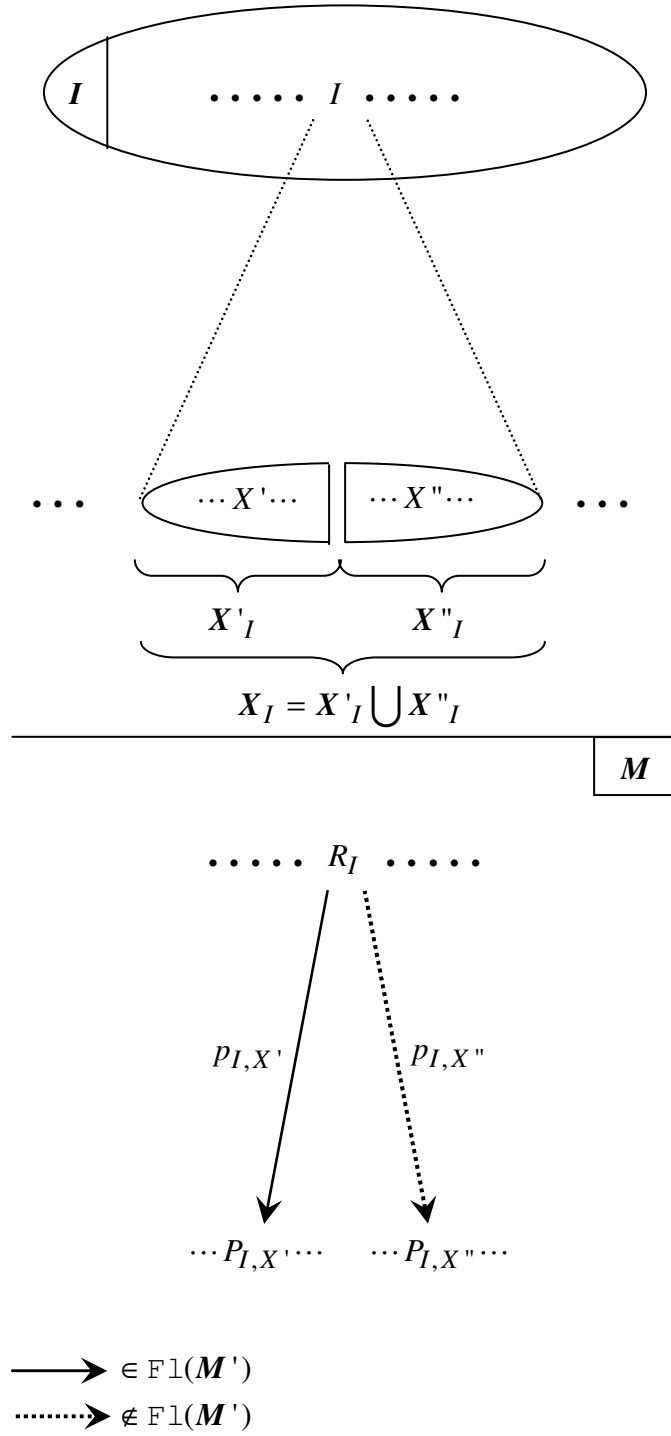


Figure 21

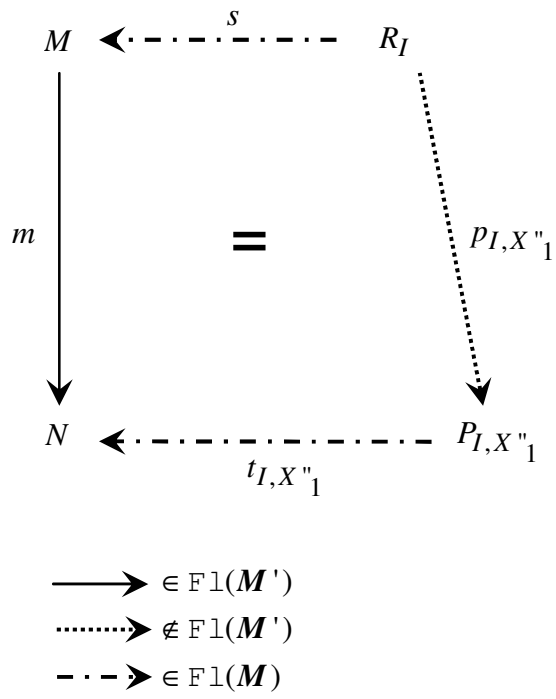


Figure 22

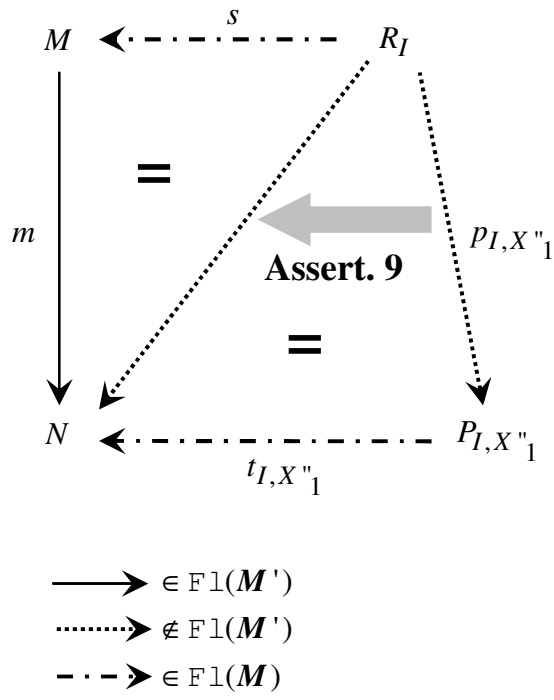


Figure 23

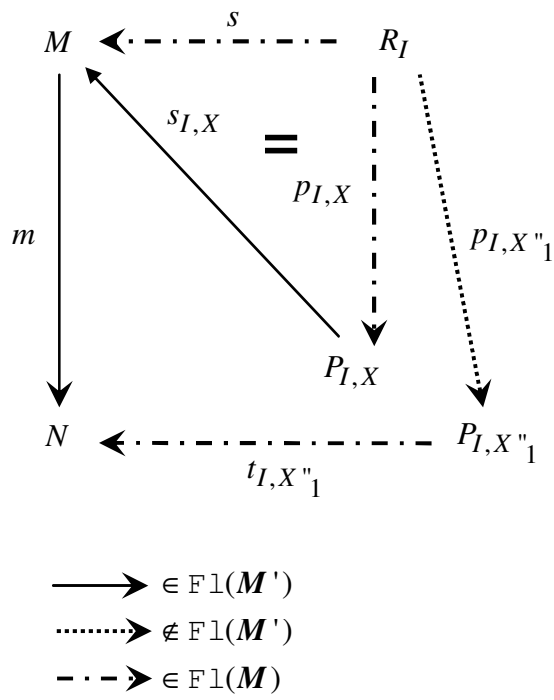
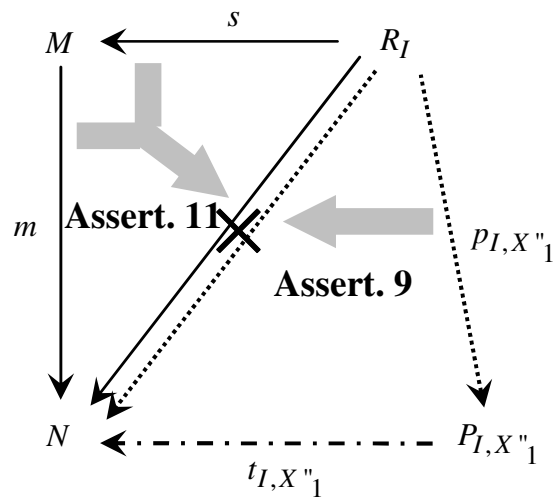
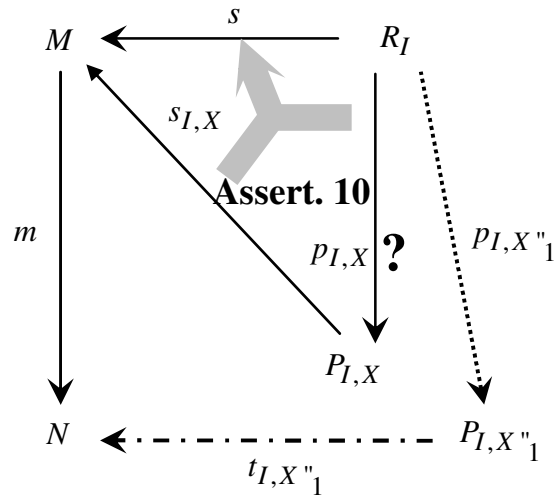


Figure 24



$\longrightarrow \in \text{Fl}(M')$
 $\cdots \longrightarrow \notin \text{Fl}(M')$
 $- - \longrightarrow \in \text{Fl}(M)$

Figure 25

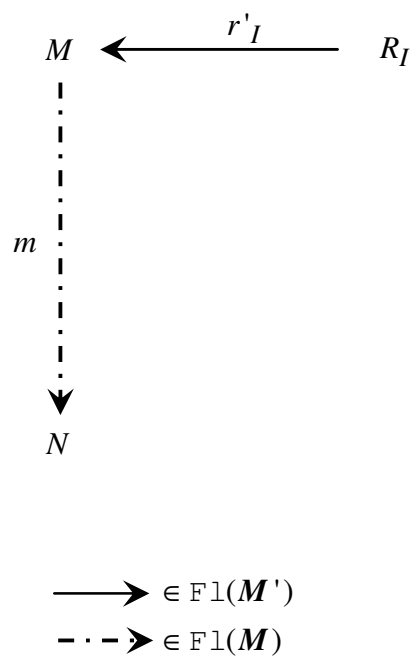


Figure 26

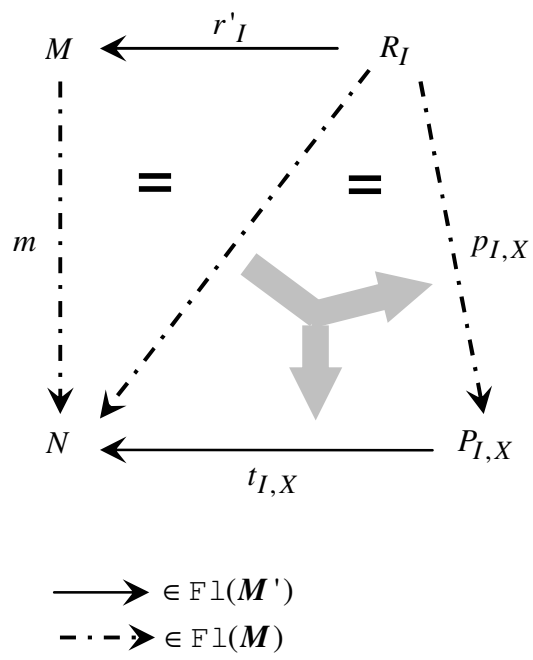


Figure 27

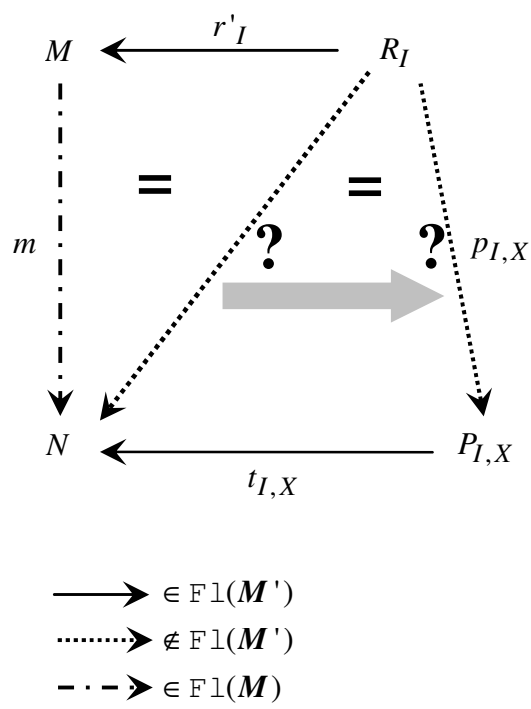


Figure 28

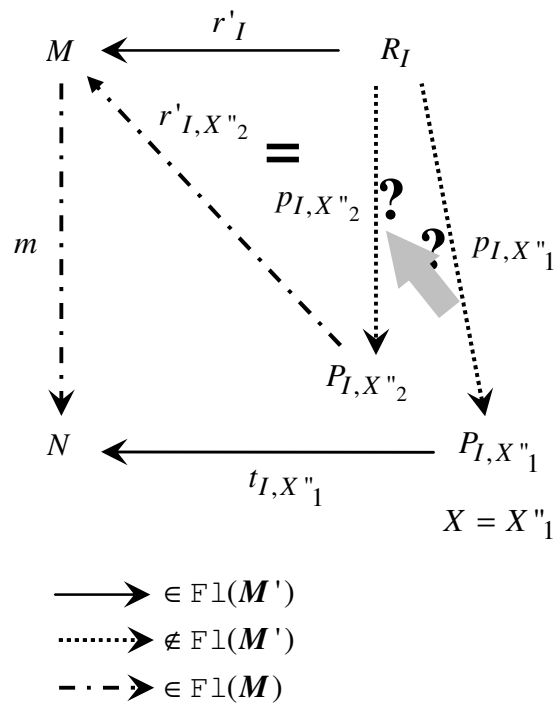


Figure 29

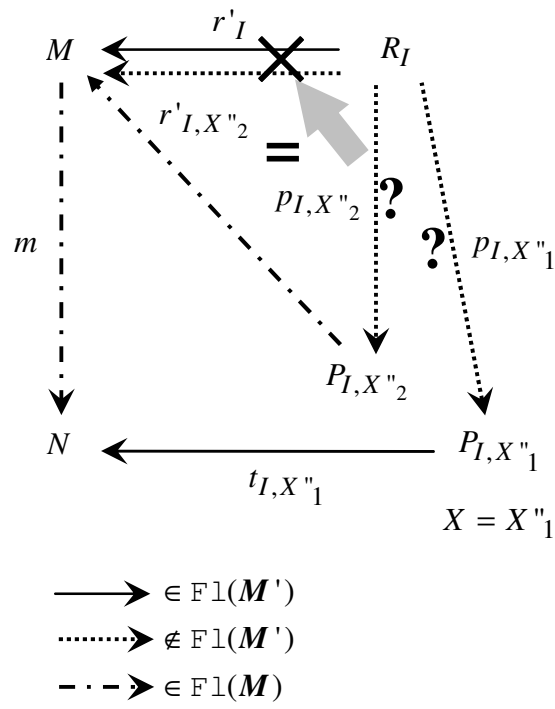


Figure 30

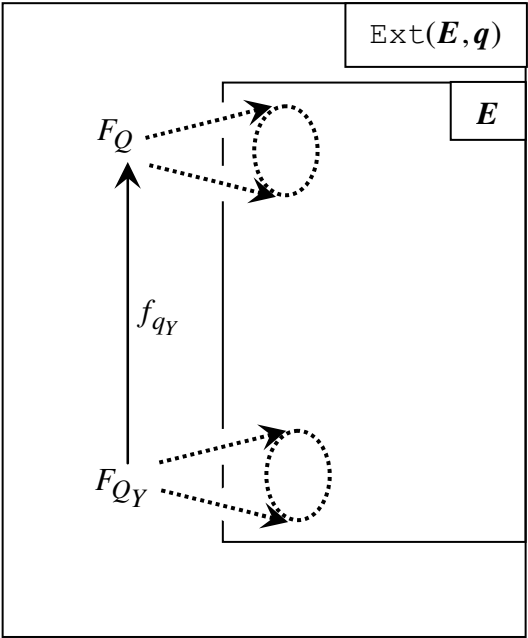


Figure 31

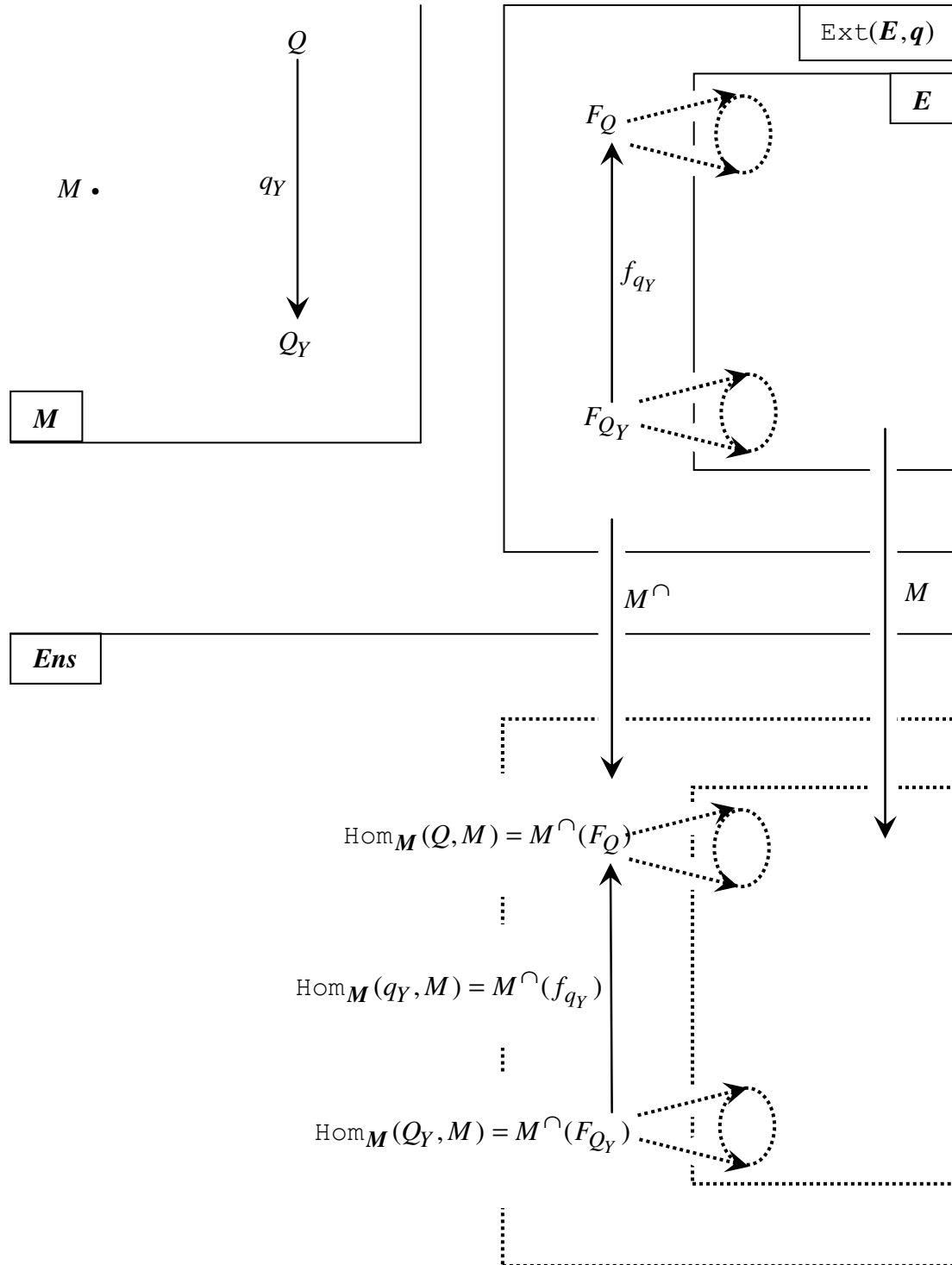


Figure 32

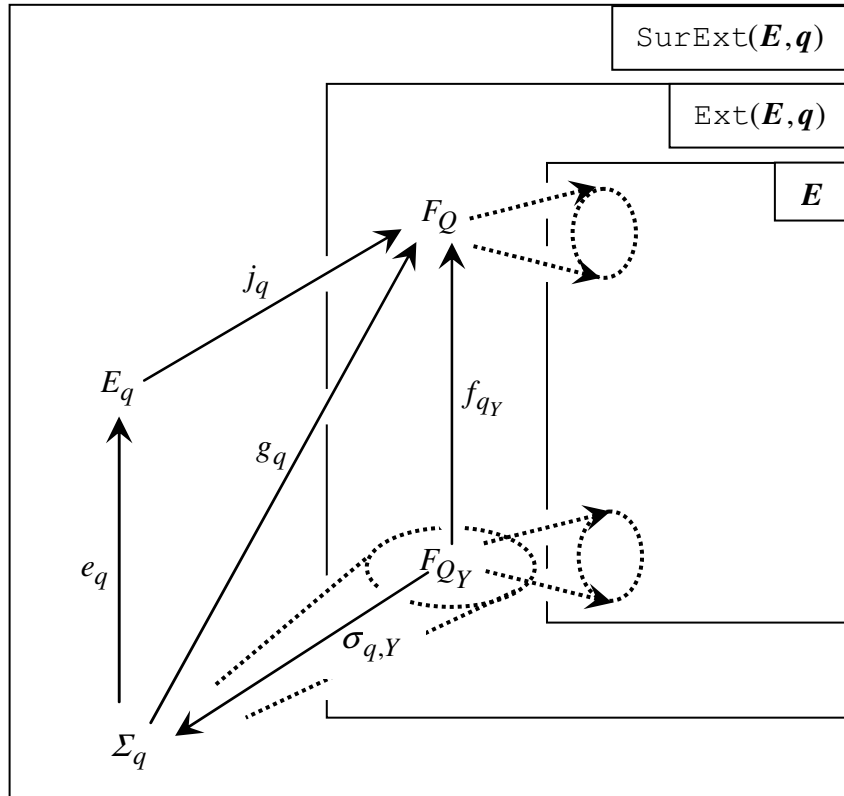


Figure 33

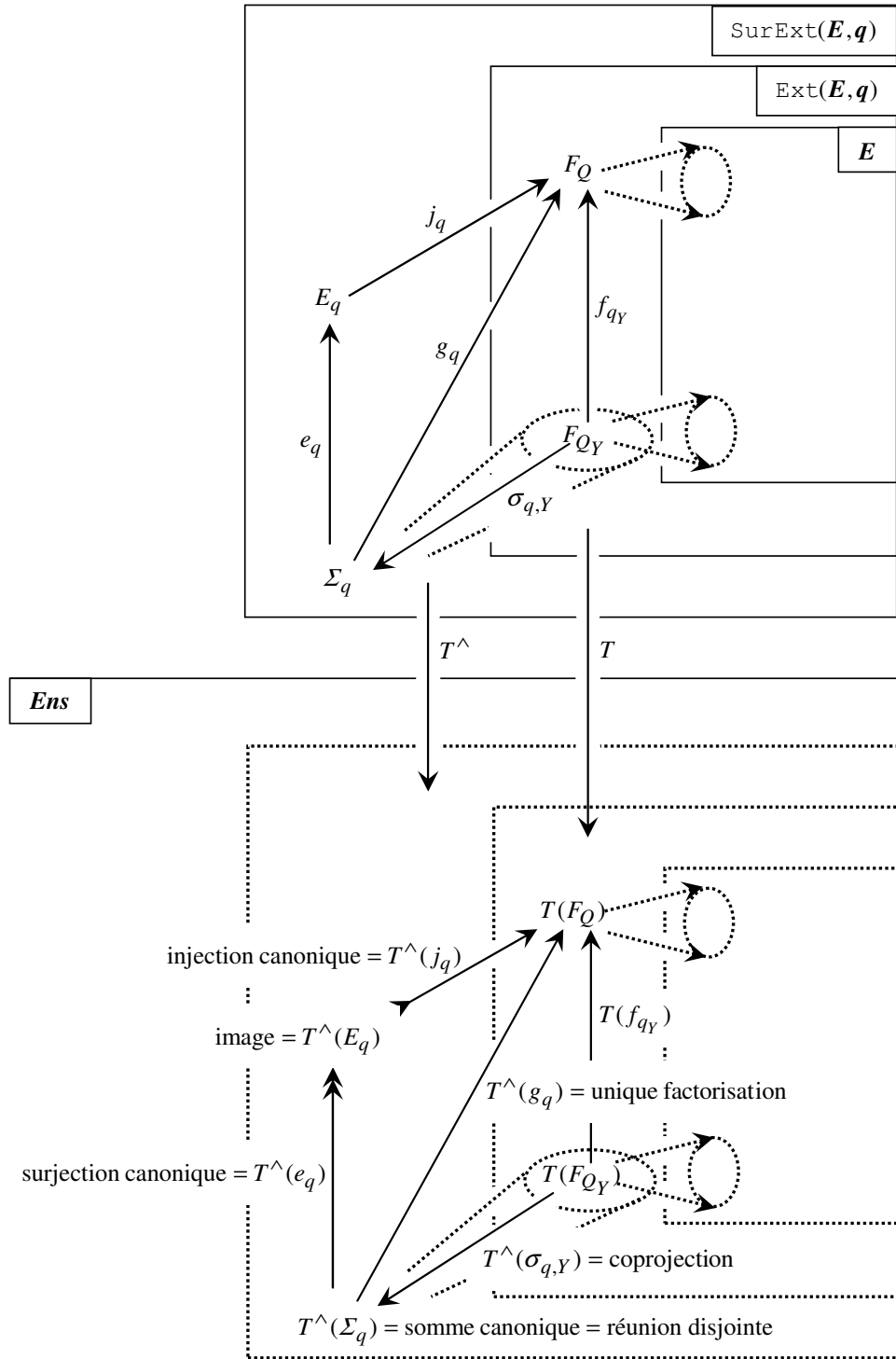


Figure 34

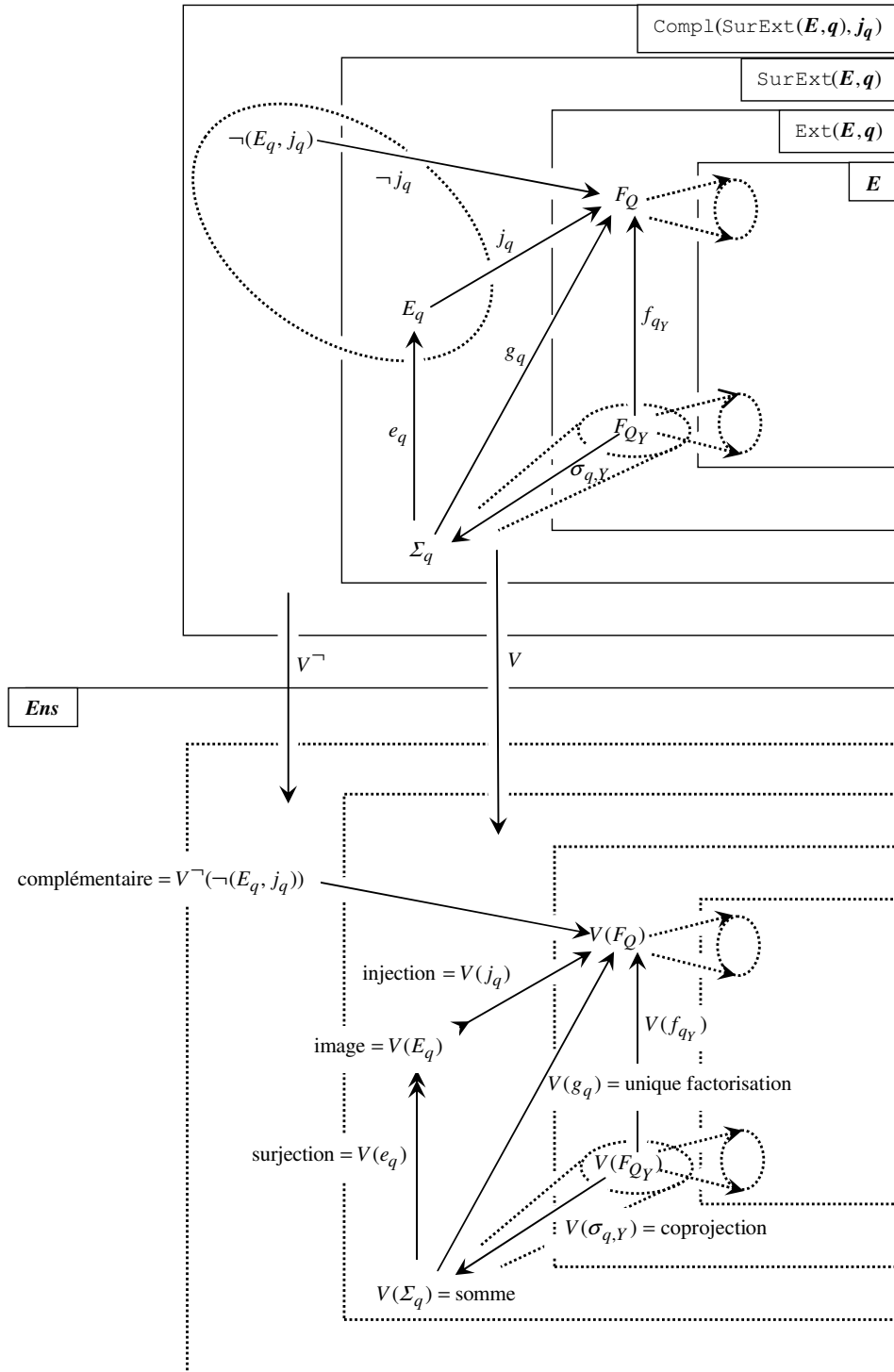


Figure 35

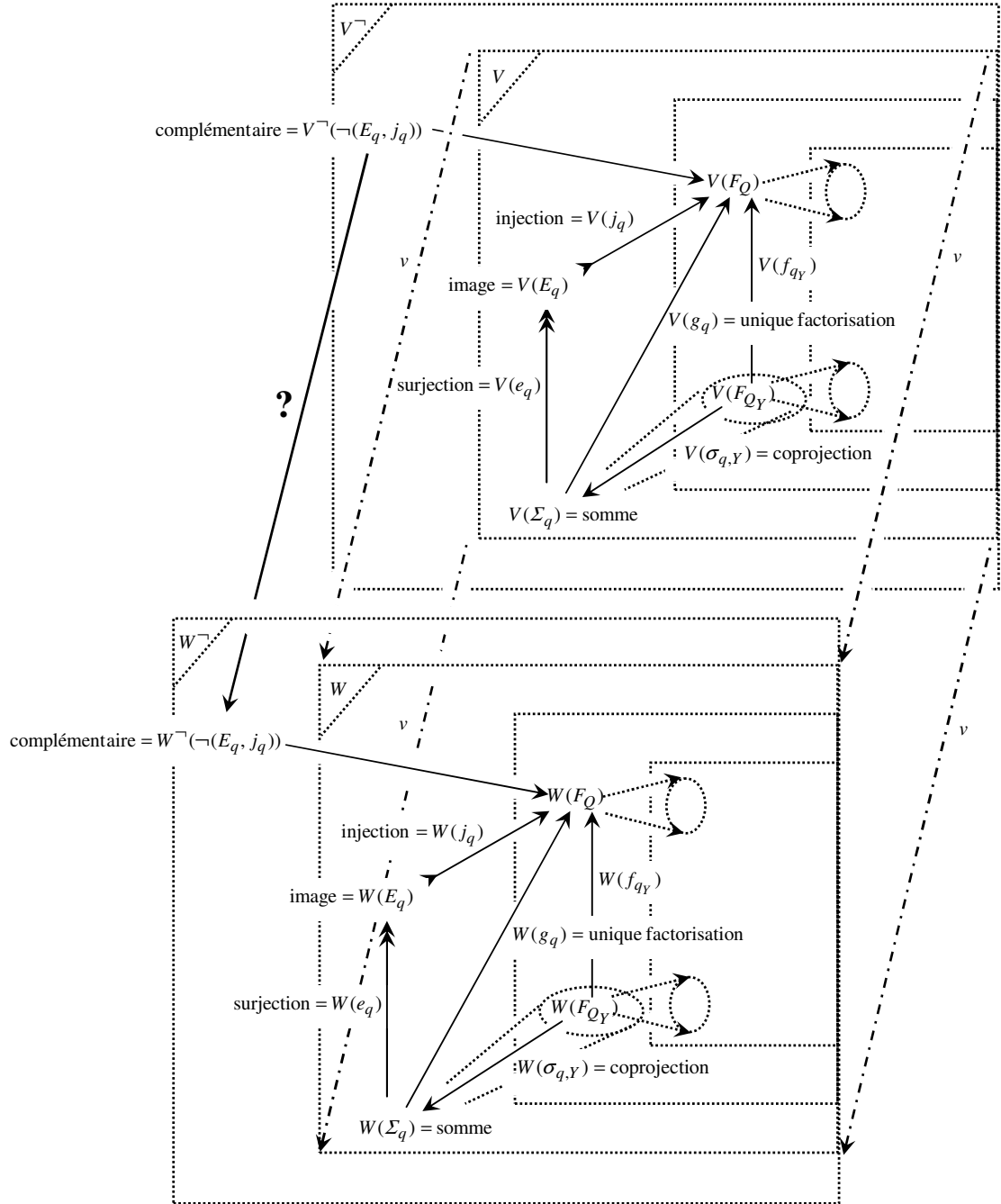


Figure 36