$$
\begin{array}{lcl}
[\![p_1 \cup p_2]\!]{\downarrow}(N) & := & [\![p_1]\!]{\downarrow}(N) \cup [\![p_2]\!]{\downarrow}(N) \\
[\![p/axis{::}test[q]]\!]{\downarrow}(N) & := & F_{axis}([\![p]\!]{\downarrow}(N)) \cap T(test) \cap [\![q]\!]? \\
[\![/axis{::}test[q]]\!]{\downarrow}(N) & := & F_{axis}(\{n_0\}) \cap T(test) \cap [\![q]\!]? \\
[\![axis{::}test[q]]\!]{\downarrow}(N) & := & F_{axis}(N) \cap T(test) \cap [\![q]\!]? \\
\\
[\![q_1 \wedge q_2]\!]? & := & [\![q_1]\!]? \cap [\![q_2]\!]? \\
[\![q_1 \vee q_2]\!]? & := & [\![q_1]\!]? \cup [\![q_2]\!]? \\
[\![\neg q]\!]? & := & \mathsf{Node} \setminus [\![q]\!]? \\
[\![\mathrm{true}]\!]? & := & \mathsf{Node} \\
[\![p]\!]? & := & [\![p]\!]{\uparrow} \\
\\
[\![/p]\!]{\uparrow} & := & \begin{cases} \mathsf{Node} & \text{if } n_0 \in [\![p]\!]{\uparrow} \\ \emptyset & \text{otherwise} \end{cases} \\
[\![axis{::}test[q]/p]\!]{\uparrow} & := & F_{axis^{-1}}([\![p]\!]{\uparrow} \cap T(test) \cap [\![q]\!]?) \\
[\![axis{::}test[q]]\!]{\uparrow} & := & F_{axis^{-1}}(T(test) \cap [\![q]\!]?)
\end{array}
$$

Figure 1: Alternative semantics for CoreXPath.

$$
\begin{array}{lcl}
[\![p]\!]{\downarrow}(N) & = & \bigcup_{n \in N} [\![p]\!]_{NodeSet}(n) \\
[\![q]\!]? & = & \{n \in \mathsf{Node} \mid [\![q]\!]_{Boolean}(n)\} \\
[\![p]\!]{\uparrow} & = & \{n \in \mathsf{Node} \mid [\![p]\!]_{NodeSet}(n) \neq \emptyset\}
\end{array}
$$

Figure 2: Relation between the two semantics.