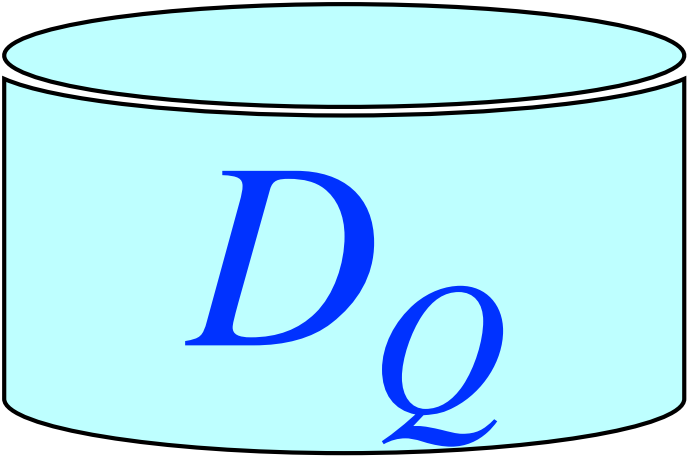
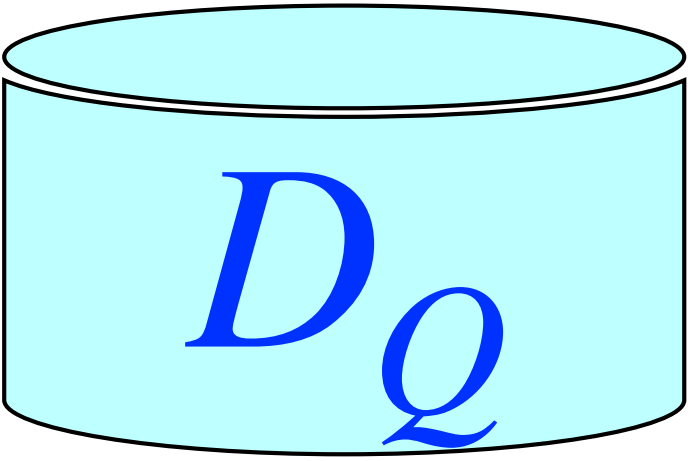
12

Bounded Evaluation with Views

What if queries are not bounded with available $\mathcal{A}$?

Q(
D
)


D_Q


D_Q

$$, \mathsf{V}(D)$$

cached views

by reasoning with $\mathcal{A}$

making Q bounded with V

Input: An access schema $\mathcal{A}$, a query Q, a set $\mathcal{V}$ of views

Question: *Does Q have a bounded rewriting using $\mathcal{V}$ under $\mathcal{A}$?*

- Undecidable for first-order logic (FO) queries
- Σ_3^p-complete for SPC queries (conjunctive queries)

Complexity bounds [4]

Effective syntax [5]

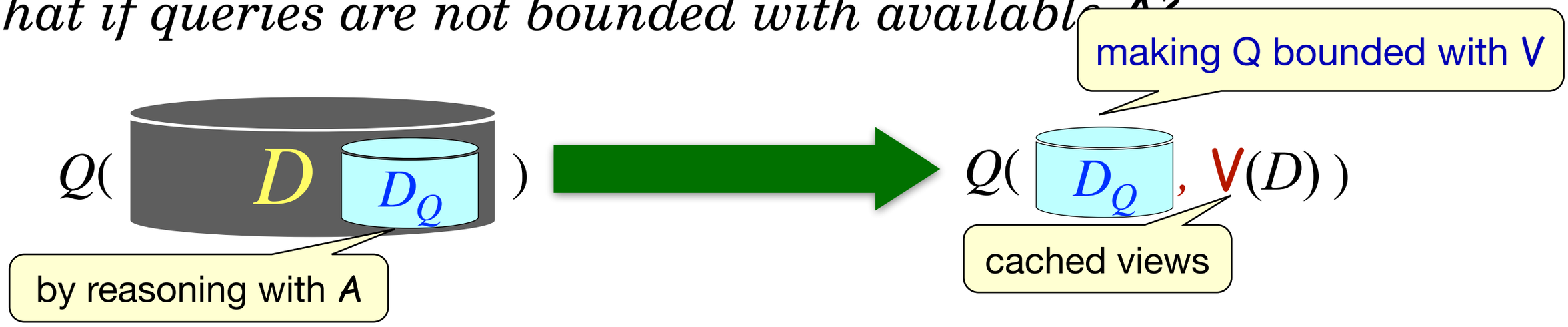
[4] Y. Cao, W. Fan, F. Geerts, P. Lu, Bounded Query Rewriting Using Views, PODS 2016

[5] Y. Cao, W. Fan, F. Geerts, P. Lu, Bounded Query Rewriting Using Views, ACM TODS

Making full practical use of bounded evaluation with views

Bounded Evaluation with Views

What if queries are not bounded with available $\mathcal{A}$?



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Making full practical use of bounded evaluation with views

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Bounded Approximation

— for unbounded queries