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**Type:** Article in Journal

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**Title:** Reconstituting Beta Graphs into an Efficacious System

**Year:** 1999

**Journal:** Journal of Logic, Language and Information

**Volume:** 8

**Issue:** 3

**Pages:** 273-295

**Keywords:** Efficacy, Existential Graphs, Natural deductive system, Naturalness, Transformation rules, Visual features, Visual intuitiveness

**Abstract:** Logicians have strongly preferred first-order natural deductive systems over Peirce's Beta Graphs even though both are equivalent to each other. One of the main reasons for this preference, I claim, is that inference rules for Beta Graphs are hard to understand, and, therefore, hard to apply for deductions. This paper reformulates the Beta rules to show more fine-grained symmetries built around visual features of the Beta system, which makes the rules more natural and easier to use and understand. Noting that the rules of a natural deductive system are natural in a different sense, this case study shows that the naturalness and the intuitiveness of rules depends on the type of representation system to which they belong. In a diagrammatic system, when visual features are discovered and fully used, we have a more efficacious deductive system. I will also show that this project not only helps us to apply these rules more easily but to understand the validity of the system at a more intuitive level.

**DOI:** 10.1023/A:1008303204427

**Language:** English