

Paul M. Pietroski, Rutgers University

**Abstract for “Subjects, Predicates, and Minimal Relations”**

Frege gave us a deeply *relational* conception of logic. Classical predicates were redescribed in terms of relations that entities bear to truth values; classical quantifiers were redescribed in terms of relations exhibited by relations that entities bear to truth values; and the formal apparatus that Frege developed allowed for ever more abstraction, as illustrated with his characterization of the thought that the arithmetic relation of *precedence* (i.e., *being less than*) is the transitive closure—or “ancestral”—of the *predecessor* relation that zero bears to exactly one number. Despite the power of this apparatus, it is often used to describe the semantic properties of ordinary sentences like ‘Every frog is green’. The familiar idea is that ‘frog’ and ‘(is) green’ are expressions of the minimally relational type  $\langle e, t \rangle$  while ‘every’ is of the higher type  $\langle \langle e, t \rangle, \langle \langle e, t \rangle, t \rangle \rangle$ . This deeply relational conception of what ‘Every frog is green’ means—in effect, that the green things *include* (every one of) the frogs—quickly leads to serious difficulties that are well-known yet often bracketed, as if there is no viable alternative. But I’ll urge a return to a much older idea: quantificational sentences have quantificational *subjects*; and natural language quantification is *restricted* but not fundamentally relational. Along the way, I’ll discuss quantifier raising, examples like ‘Grover saw every frog’, and the so-called conservativity of determiners. If time permits, I’ll advertise some [collaborative experimental work](#) (led by Tyler Knowlton) that also tells against the idea that words like ‘every’ are understood as indicating relations like inclusion.

If you want to look at anything in advance—or after the talk—there are links to some slides and a book chapter at the end of [this page for an informal seminar](#) that I have been running this term. I’ll also try to post (draft) slides for the talk a day or two in advance, via [my primary webpage](#).