Sub-Types as Contextual Notation

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In equational form, one can not direct the reader's attention toward some variables:

add(a, b) = c

In path semantics, one can define a sub-type in a way to focus on any "natural" part of the equation:

a : [add b] c
b : [add(a)] c
c : (= add(a, b))
(a, b) : [add] c
add(a, b) : (= c)

This syntax has an advantage when using multiple equations:

add(a, b) = c
even(a) = true
even(b) = true
even(c) = true

The equations above can be reduced to a single line in path semantics:

add(a : even, b : even) = c : even

Although much rarer, one can also use nested form to express the same equations:

b : even ∧ [add(a : even)] c : even