

<p>Recap: the "environment" maintains name-value pairs, where values are either constants or closures.</p> <p>To enable closures to reference itself in the defining environment, an additional dictionary (name-value pairs) is needed.</p> <p>The two association lists together form the environment:</p> <p>["a list of name-value pairs" "a list of closure name-closure pairs"]</p>	
To create names on-the-fly: gensym	
<p>What does this support (independent of what the syntax allows)?</p> <ul style="list-style-type: none"> - function parameters (partially allowed by the grammar) - anonymous functions (not allowed currently by the grammar) - function as returned value (partially allowed by the grammar) - normal order evaluation (unrelated to the grammar, but can be) - nested functions (not allowed currently by the grammar) 	Work out examples on the board.
Note: Functions not just first-class, they can be the only class.	
<p>Denotational Semantics: The semantics of a program is given by the "meaning" function $\llbracket \dots \rrbracket$.</p> <p>Each part p of a program P is given a denotation, $\llbracket p \rrbracket$ -- a mathematical object.</p> <p>Ideally, the meaning (or denotation) of the program, $\llbracket P \rrbracket$, is the composition of the denotations of its constituent parts.</p> <p>(Compositionality)</p>	
Structural Operational Semantics for Fpl (sibling to FP).	Notes by Matthew Hennessy (Chapter 4)

	Remarks:
	- Emphasis on "Big Step Semantics" (p. 69)
	- Complete semantics for Fpl on p. 88.

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