$$P'(a) \Leftarrow a?(x).(\text{new}(n').(n'!\langle \rangle \mid c!\langle \rangle))$$

is α -equivalent to

$$P(a) \Leftarrow \ a?(x).(\mathrm{new}(n).(n!\langle\rangle \ | \ x!\langle\rangle))$$

(which terms are bound?)