comp-atom-ap[11,40]

comp-atom-ap(g; f; x; a)
$\equiv_{\text{def}}$ let $f'= \lambda a.\text{compose}(g;\ f)$ in
       let $x'= \lambda a.x$ in
           let $F= \lambda b,c.\ f'(b,x'(c))$ in
              let $L= \text{atoms-in}(F)$ in
                  let $b= \text{new-atom}(\text{cons}(a;\ L))$ in
                    ifeq_atom$((F(b,a));\ a)$
                      then inr $(f'(b))$
                  ifeq_atom$((F(a,b));\ a)$
                    then inl $(\lambda f.g(f(x'(b))))$
                  else inr $(\lambda x.\text{hd}(\text{list-diff}(\text{atom-deq};$
                                      $\text{monitor}((f'(b,x)));$
                                      $\text{cons}(b;\ L))))$
                  fi