Implicit Downcasts in OCL Collection Operations

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```
+ Set{4,'VII','IV',7}->
    selectByKind(Integer)->
      collect(i | i*i)

    ==> Bag{16,49} : Bag(Integer)
```

```
+ Set{4,'VII','IV',7}->
    select(x:OclAny | x.oclIsTypeOf(Integer))->
      collect(x | let i:Integer=x.oclAsType(Integer) in i*i)

     ==> Bag{16,49} : Bag(Integer)
```

```
+ Set{4,'VII','IV',7}->
    collect(i:Integer | i*i)                    Integer < OclAny

    ==> Bag{16,49} : Bag(Integer)
```

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+ General translation starting from types S,G with S < G

```
col->colOp(s:S | expr[s])                    col:Collection(G)

  ==> col->
        select(x | x.oclIsTypeOf(S))->
          colOp(g:G | let s:S=g.oclAsType(S) in expr[s])
```

+ Application in the context of generalization

```
Female, Male < Person

Set{ada,bob,cyd}->
  collect(f:Female | f.husband.firstName)

  ==> Bag{'Dan'}
```