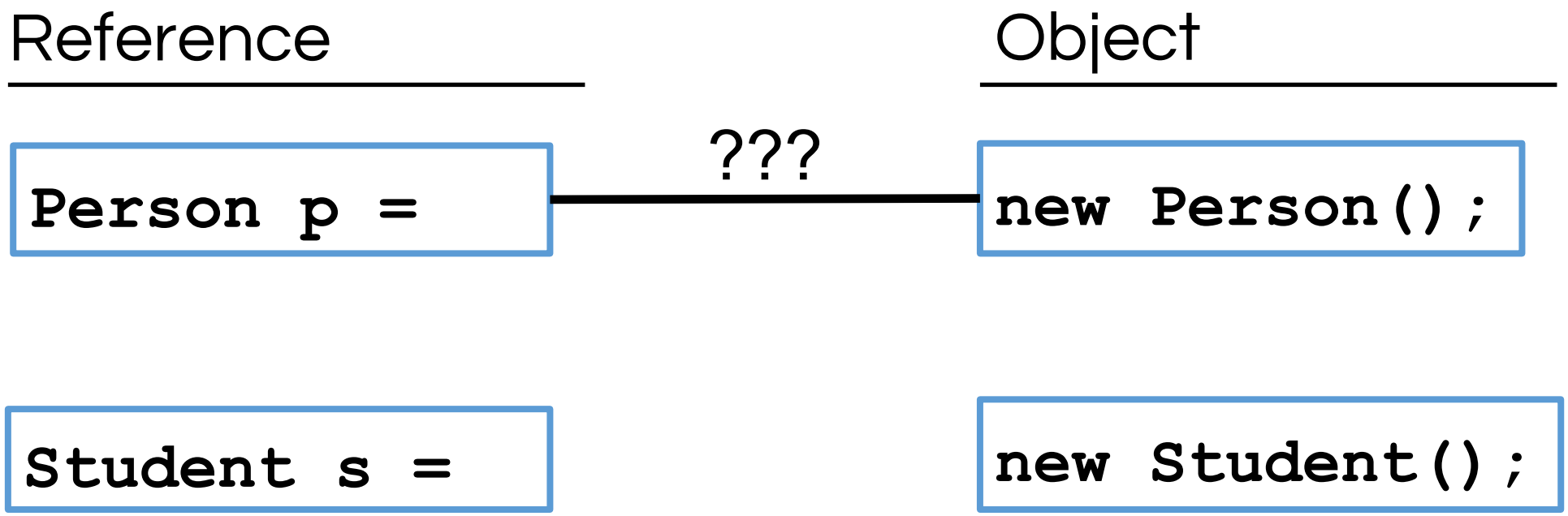
Inheritance in Java

By the end of this video you will be able to…

- Explain an “is-a” relationship between classes

What did we want?

1. Keep common behavior in one class
2. Split different behavior into separate classes
3. ~~Keep all of the objects in a single data structure~~



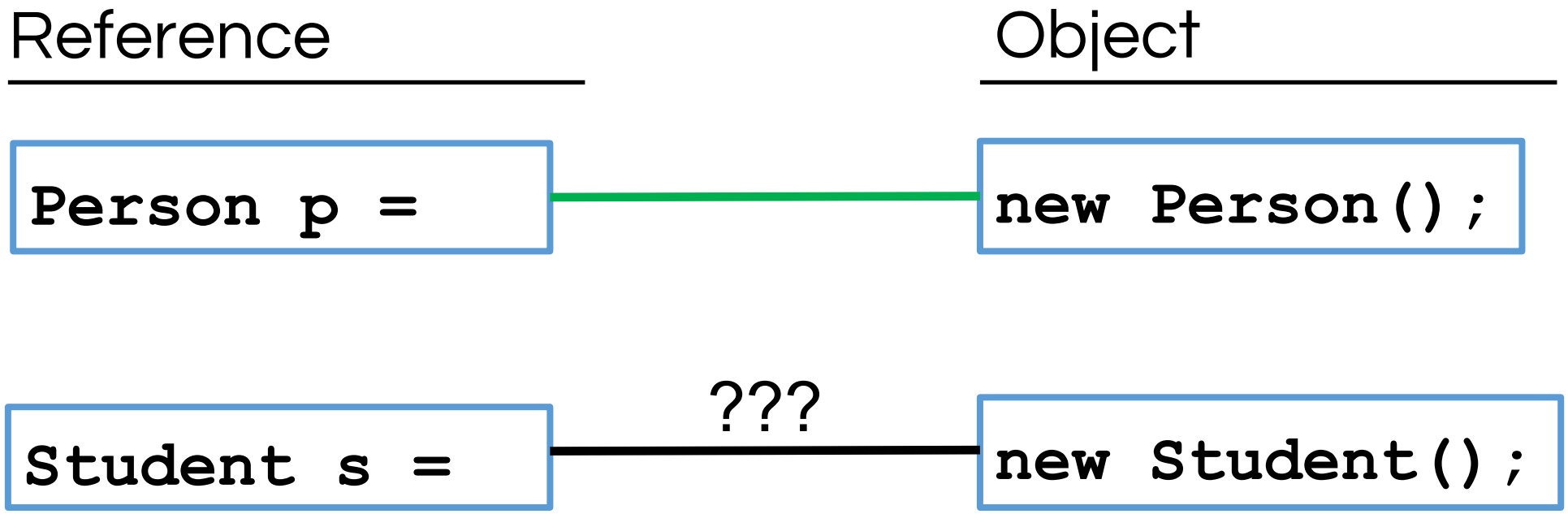

```
Person p = new Person();
```

Reference

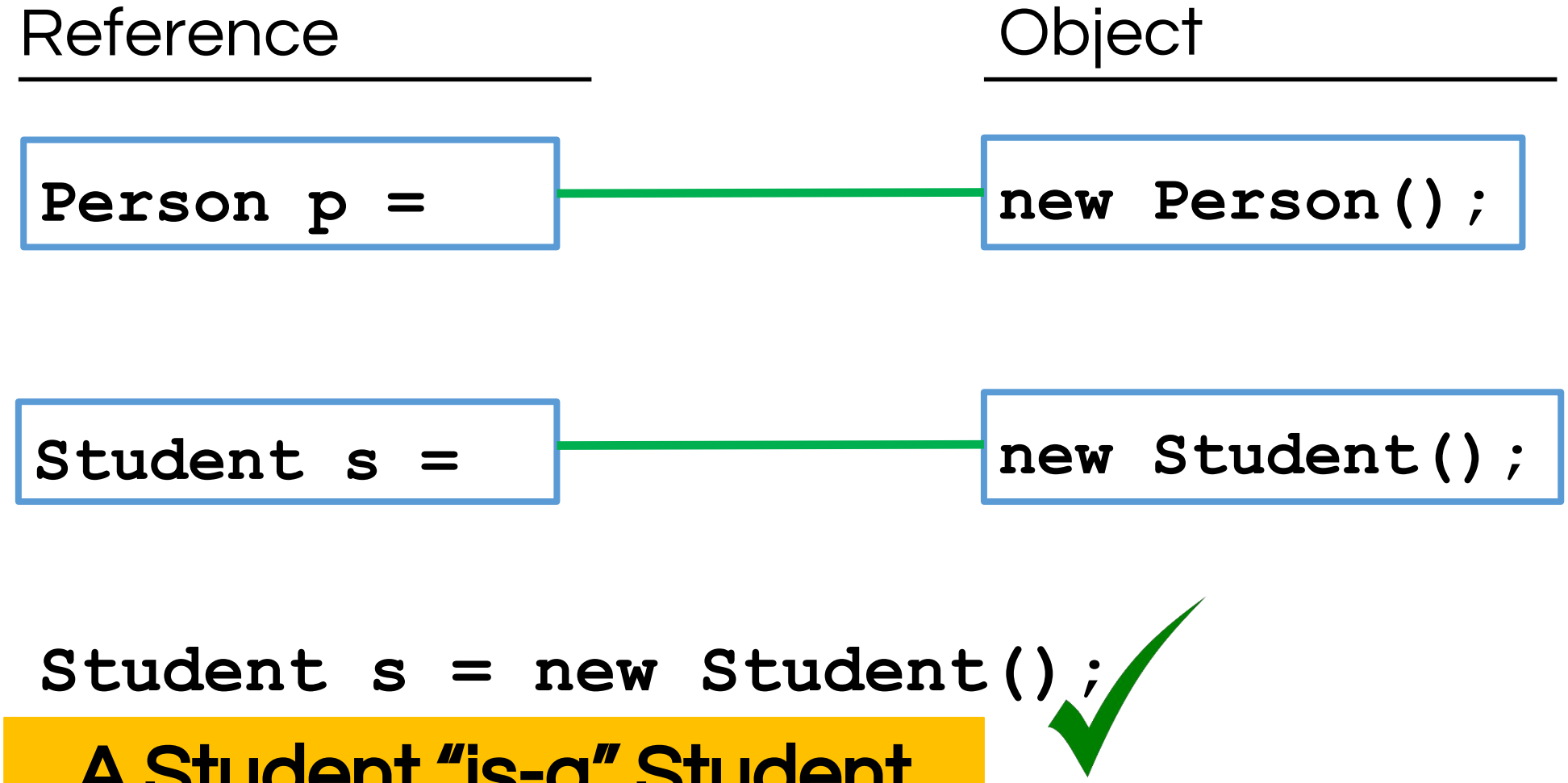
Object


```
Person p = new Person();
```

A Person “is-a” Person

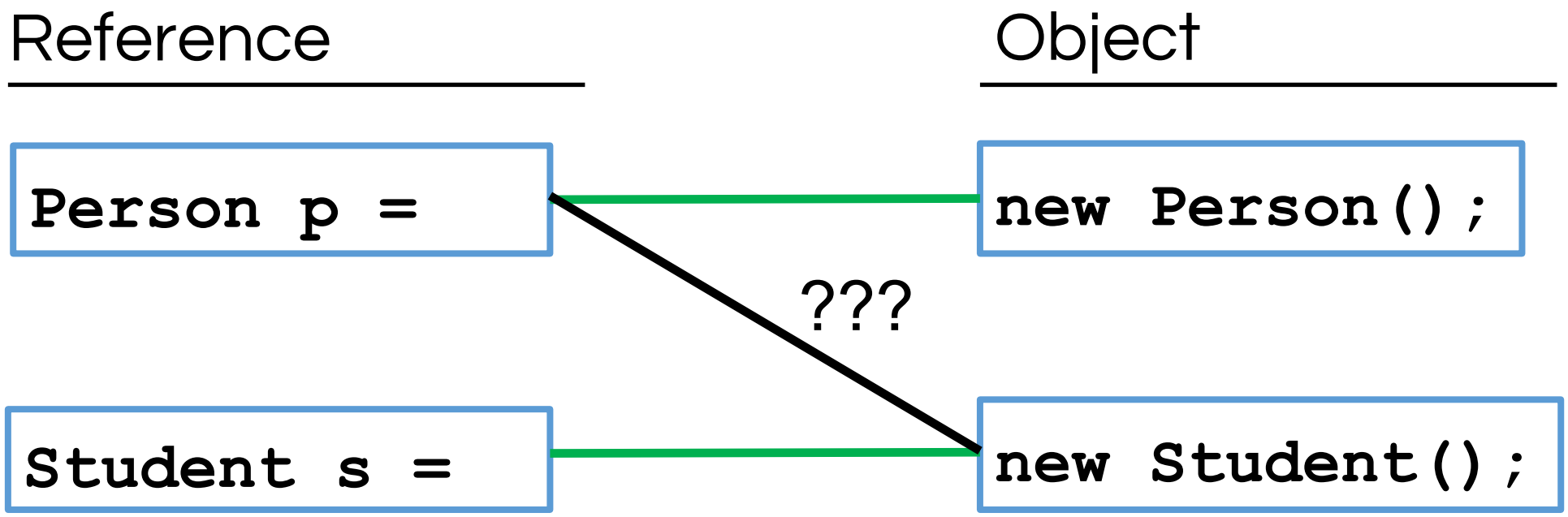



```
Student s = new Student();
```

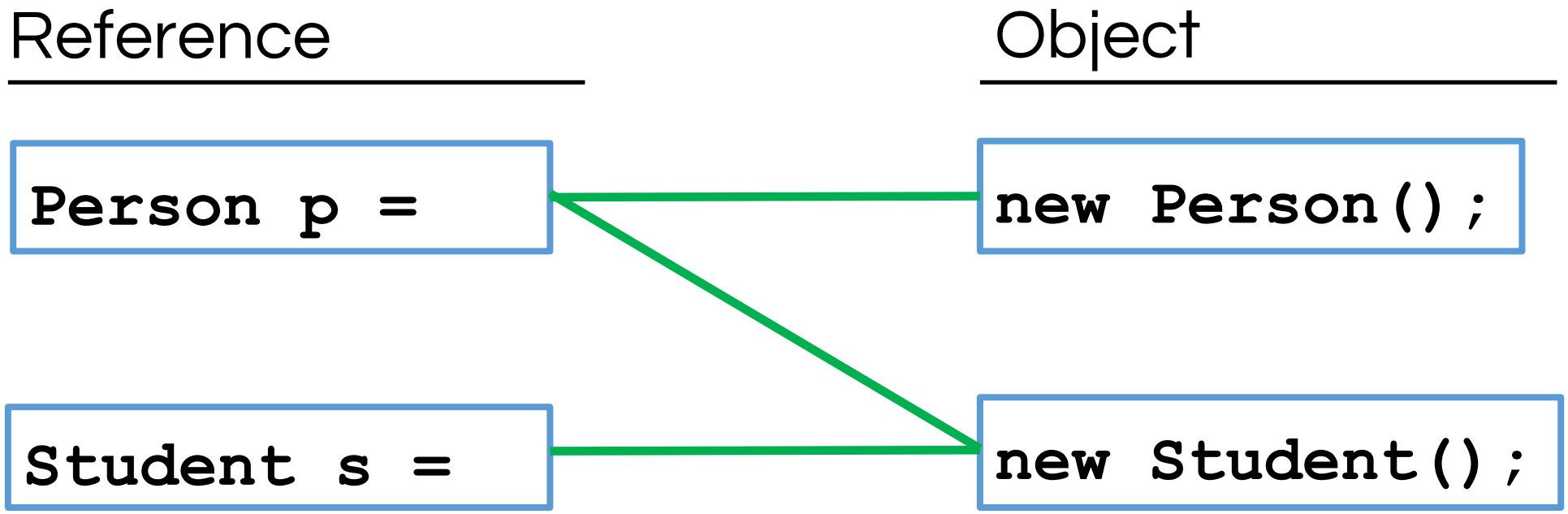



```
Student s = new Student();
```

A Student “is-a” Student




```
Person p = new Student();
```

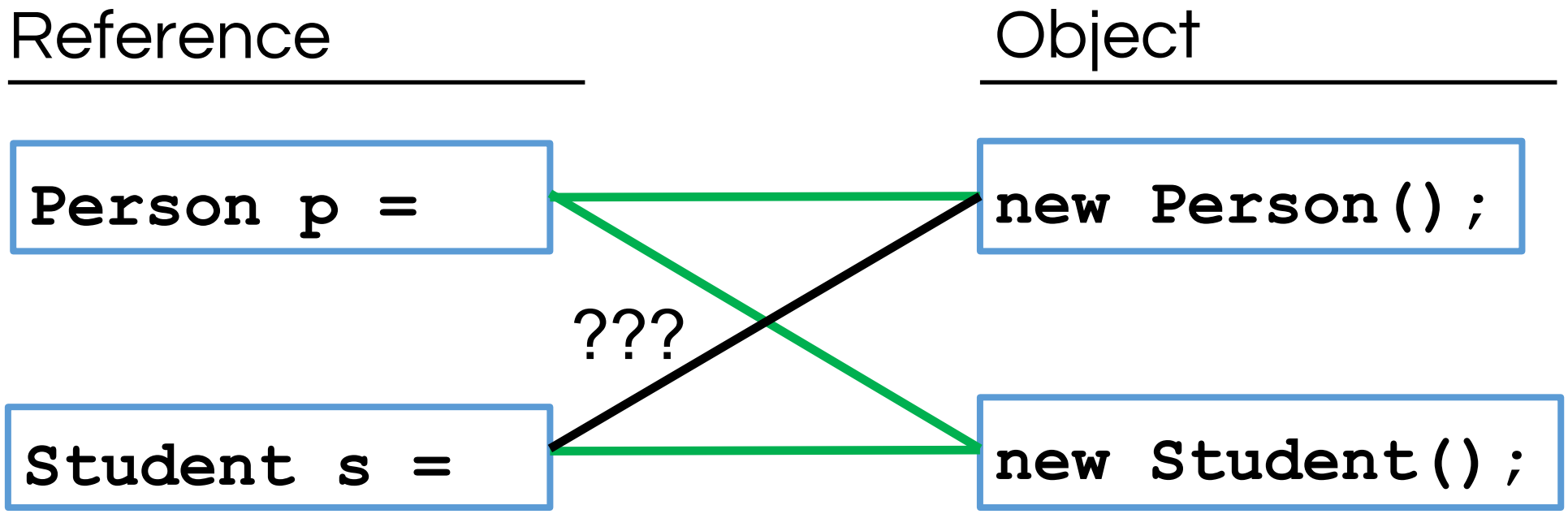



```
Person p = new Student();
```

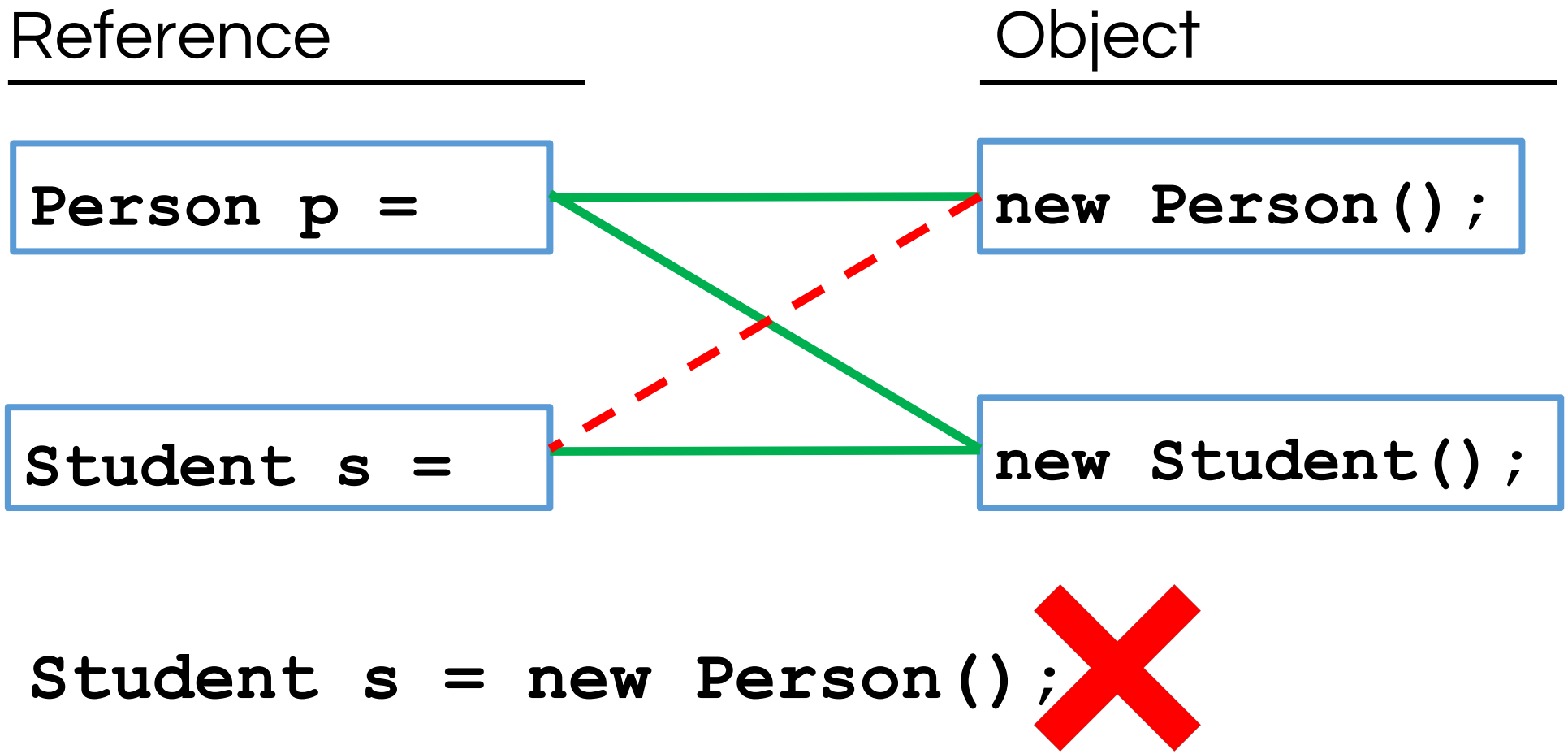
A Student "is-a" Person

```
// in main
Person[] p = new Person[3];
p[0] = new Person();
p[1] = new Student();
p[2] = new Faculty();
```

A Person array CAN store Student and Faculty objects




```
Student s = new Person();
```




```
Student s = new Person();
```