Research animal welfare is organized around a distinction between the care of animals and their use in experiments. This paper draws on ethnographic fieldwork in a behavioral neuroscience laboratory to complicate this presumed division between science and welfare. Using the case study of animal handling, I explore how scientists use animal welfare concepts to aid them in their experimental work. The inter-subjective stances and handling techniques promoted by welfare professionals, for example, provide scientists with a means of assessing and maintaining a controlled laboratory environment. I will examine both the productive and the problematic aspects of science-welfare interactions in animal research.