IS MY CAR SMARTER THAN MY CAT?

By Isabel Beichl, Editor in Chief

WE RECENTLY BOUGHT A NEW CAR. WELL, NOT EXACTLY *NEW*, BUT RELATIVELY NEW AND IN GOOD SHAPE. (I HOPE.) THAT IN ITSELF ISN'T TOO INTERESTING, EVEN TO ME, THE BUYER. BUT THIS CAR HAS MORE ELECTRONICS THAN ANY I'VE EVER OWNED.

The manual alone is heavier than my cat, but let's not anticipate.

It seems that one characteristic of new cars is their large and diverse array of features and gadgets. My car will

- tell me the outside temperature;
- give an audible warning when the temperature is low enough to make icy roads possible;
- tell me when the tires slip a little;
- tell me if a tire is low and show me which one;
- control the inside temperature separately for the driver and passenger;
- heat the seats independently for the driver and passenger;
- automatically turn on the wipers and adjust the frequency depending on the amount of rain;
- warn me if the seat belt isn't fastened (of course!);
- tell me when an oil change is needed;
- obey several spoken commands, turning the radio on or off and/or selecting the station I mention;
- remember the seat position for two different drivers; and
- adjust the side-view mirror when reversing.

It probably does more, but I haven't gotten to volume two of the manual.

I invite you to compare that to my beloved cat that we got at the shelter some years ago. She can

- run into the kitchen looking for dinner (or not, depending on who is calling);
- wait for 12 hours looking out the back window just in case the neighbor's cat should walk by (and fall asleep for eight of those 12 hours);
- take five to 10 minutes to recognize my husband, almost every evening; and
- suddenly discover, after a mere seven years, that a dripping faucet is an interesting object to watch.

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So which is more intelligent, my car or my cat? I have some idea of the computing that's behind my car's features, but I know much, much less about how my cat operates. In fact, my use of the word "intelligent" is, well, not too intelligent. Because I'm not really asking about intelligence and I already know that much of what I observe in the behavior of my cat can be imitated by software, up to and including the discovery of faucet entertainment. What I don't have any idea about is what's going on when the cat thinks.

The topic of cognition is now a very hot research area, one in which computational scientists are already making contributions. I think, however, that many ideas are yet to come—the world of computing will have much more to say about this subject. One of the most ancient and great questions is how does a thought start? If I decide to move my hand, my brain tells my hand to move. But what tells my brain to tell my hand to move? Is something like the

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operating system (OS) boot process going on? Are there a few basic commands issued to an architecture built to receive them?

This is just one of many ways in which I think our community might have an impact on research in cognition.

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