Context

In this research, the authors propose a solution to extending the affordance of objects by allowing them to communicate dynamic use. The purpose is to enable users to appropriately use physical objects. But instead of enhancing objects directly (as addressed by already existing techniques), they choose to enhance the user himself. This consists in stimulating the user's arms using electrical muscle stimulation.

Example - Spray can

The appropriate usage of a spray can is to shake it before use. Most people that participated in the experiments led by these researchers tended to press the button before shaking the spray can. In fact the label of the spray can says: "shake before use", but it was not intuitive to read it. The question that motivated this team is: "why did the bottle not afford that?". Here came the idea of allowing objects to communicate the way they should be used. ("the underlying limitation of this type of physical objects is that they cannot depict time").
As a result, instead of: (1) searching the label, (2) reading it, (3) understanding it, then (4) mimicking the action, the dynamic use information is directly communicated to the user.

Opinion

- In the examples presented in this study, *affordance++* actuates the users' hands with low intensity, rather than actuating the objects. The authors stated that this is used to *suggest* how to use objects, all by keeping the user in the loop (allowing them to decide when to follow a suggestion and when to overwrite it). Isn't this same technique could be used to physically manipulate people? For a given action performed by a person equipped with this tool, is the user completely responsible for the actions his hand takes?