It’s a Wrap

Have you ever tried to cover a bowl with plastic wrap, only to find that the wrap seemed to have a mind of its own? You stuck one end down, and the other seemed to fly up in the opposite direction. To further complicate things, the wrap also seemed to have an uncanny attraction for both your hands. Despite having been a frustrating experience, it can be used to teach real science.

Materials
- Lightweight plastic food wrap
- A wooden ruler or wooden paint stirrer

To Do
Cut a section of plastic wrap about 20 inches (50 cm) long and 2 inches (5 cm) wide. Spread this strip out flat against a wall. Rub the wrap, pressing it out in all directions.
Once it clings to the wall, peel back the wrap and hang it over a ruler.
While holding the ruler with one hand, slip your other hand into the space between the sides of hanging plastic. What happens?
Can you explain your observations?

The Science
As you spread the plastic wrap against the wall, charges were transferred. The plastic took on a net negative charge. The strips hanging near your hand induced a positive charge in your skin’s surface. This positive charge was sufficient to attract the negative plastic wrap, which automatically drew toward your hand.