diversions

effects

It may be a pain in the neck, it may destroy a hairdo, but the driving wind that students face as they pass by the north or south side of Oldfather Hall may be Bernoulli's Principle at work.

According to Alan Starace, the theory pertains to the movement of mass through a constricted area. Once the mass hits the constricted area, such as in between buildings, the mass must move at a faster rate in order to get the through the smaller area.

The increased velocity combined with decreased air pressure creates a wind burst in the constricted area, known as a wind tunnel.

Although this is a logical principle, Clifford L. Bettis, professor of physics, said that he isn't completely sure this explains what is happening between the buildings.

Starace agreed.

"I'm not sure that's what's happening here," he said.

Starace cited examples -- analogous to the wind tunnel phenomenon -- that apply the Bernoulli principle. One example is a river. Starace said that when a large body of water, like a river, passes through a narrow area, the velocity increases. Again the increase is attributed to the fact that the water must pass through a small area at the same time. These areas are called rapids.

Another example is a perfume atomizer. When one squeezes or presses the atomizer to release the perfume, the low pressure on the inside of the bottle and high velocity of the fluid, induced by pressure, combines with the high pressure on the outside of the bottle causes the explosion -- or the release of the fluid.

The implications of the "wind tunnels" across the University of Nebraska-Lincoln campus don't pose a great threat, Bettis said.

"I've heard and read about windows breaking out, because of the high velocity and low air pressure," he said.

According to Bettis this happens when air pressure inside the building is greater than outside.

Starace said window blowouts usually happen when the windows were loose, and even then it's not very commonplace.

These blowouts are analogous to what happens during a tornado, Starace said.

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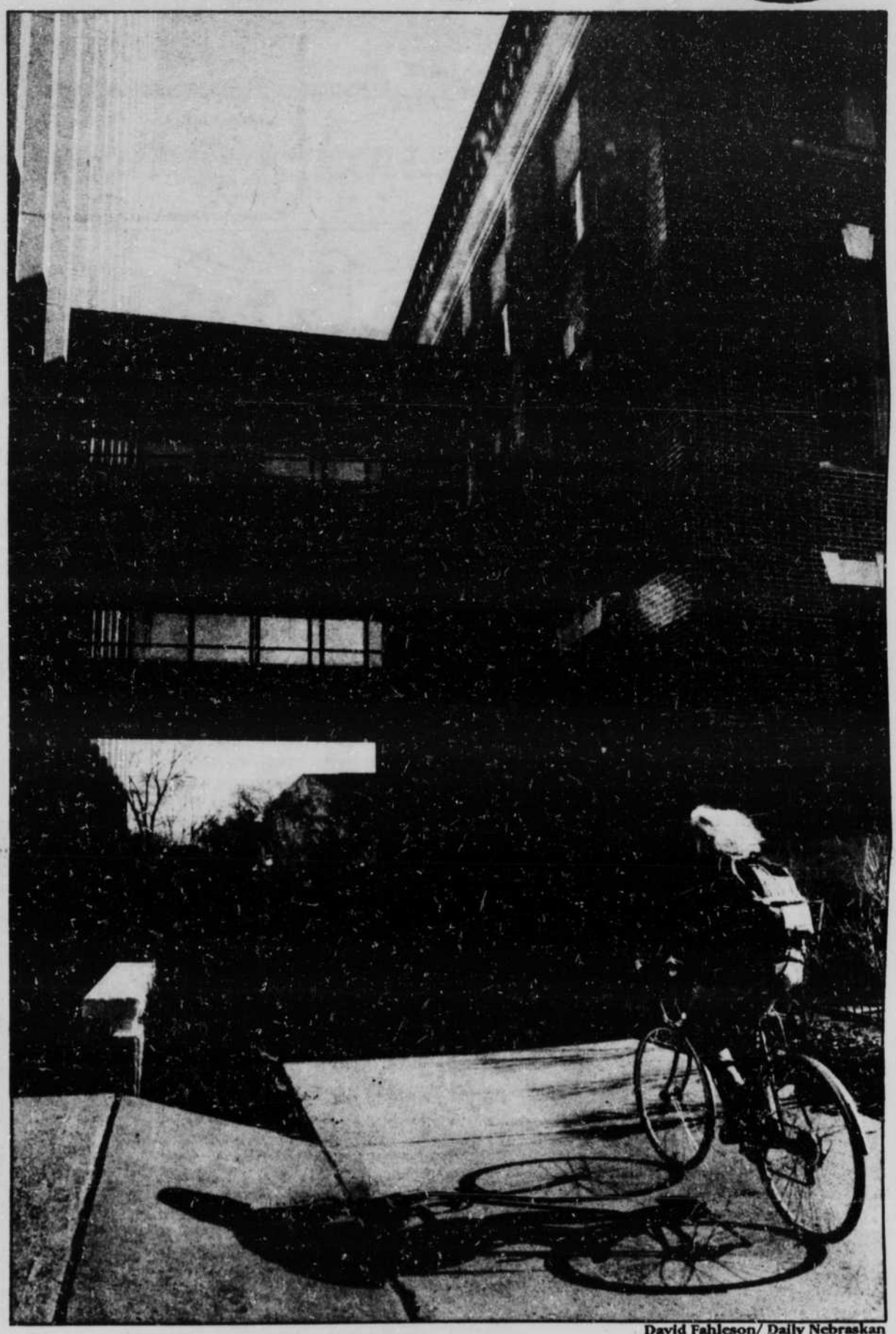

David Fahleson/ Daily Nebraskan

A student bicycles into the Oldfather wind tunnel.