

Puzzling triple rainbow clearly identifies location of pot of gold

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Raymond Chen

I noted to some friends that the weather forecast for Seattle two weekends ago called for rain on Friday, rain on Saturday, and rain on Sunday. But at least on Monday, the forecast was not for rain. It was for heavy rain. One of the consequences of Seattle's annual Rain Festival (runs from January 1 to December 31) is that we get plenty of potential for rainbows. A friend of mine was lucky enough to capture a photo of [a puzzling triple rainbow](#) this past weekend. The primary and secondary rainbows [we all know about](#), but what's that vertical rainbow shooting straight up into the sky? (And observe that the landing point of the rainbow is clearly *in front of* a house and trees, so *go get your pot of gold*.) It turns out that the mysterious third rainbow is a [reflection rainbow](#). Reflection rainbows occur when light bounces off a body of water before being refracted by rain droplets. The body of water acts like a mirror and creates a virtual light source, which results in a rainbow that is off-center from the primary. Science! (I find it interesting that there are some rainbow phenomena that science is still trying to understand. Only a few months ago did researchers figure out [how twinned rainbows are formed](#).)

Bonus reading: Seattle weather celebrity (yes, we have weather celebrities here) [Cliff Mass digs into the triple-rainbow phenomenon](#), augmenting his analysis with Doppler radar, because that's how he rolls.

[Raymond Chen](#)

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