Emilia Kilpua University of Helsinki, Finland "E. Kilpua1, S. Pal1, S. Good1, M. Ala-Lahti1, B. Lynch2, A. Osmane1, E. Palmerio2, J. Räsänen1, L.-L. Zhao3, S. Bale2, and M. Stevens5 1University of Helsinki, Finland 2University of California, Berkeley, California, US 3University of Alabama, Huntsville, US 4Smithsonian Astrophysical Observatory, Cambridge, Massachusetts, US" Oral This presentation discusses two interplanetary CMEs (ICMEs) that were observed by PSP when it was at the heliospheric distance ~0.5 au from the Sun. The first event occurred on 15-16 March 2019 and the second 25-26 June, 2020. Both ICMEs were related to slow streamer blow-out CMEs, but they interacted in an interesting manner with their surroundings. The March 2019 CME was preceded by a pair of relatively weak shocks and a prominent sheath region. We discuss the formation of magnetic field fluctuations in the sheath and their connection to upstream solar wind structures. The June 2020 CME did not drive a shock, but it nevertheless disturbed the solar wind and heliospheric current sheet/plasma sheet structure ahead, warping it and deflecting the preceding interplanetary field. This interaction also significantly eroded the magnetic flux from the ICME flux rope. Presentation file

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