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To better study asymmetric co-operative play, we developed our own research prototype game called "Beam Me 'Round, Scotty!" One player uses a dual-joystick gamepad to play the actionoriented role of the courageous space captain, Joanna T. Kirk, who must battle dangerous creatures while attempting to escape a hostile alien world. Simultaneously, a second player assumes the role of plucky engineer, Scotty, using a mouse and keyboard to play a more planning-focused strategy role. Still safe in orbit, Scotty players must use the ship's various special abilities such as heal beams, force fields, torpedoes, and teleportation to help Kirk reach safety. By designing specific challenges that deliberately tilt the direction and degree of *interdependence* between Kirk and Scotty players, we were able to use our custom-built prototype game as a fine-grained, experimental tool to better understand how asymmetry and interdependence brings players together.

Interesting fact: "Beam Me 'Round, Scotty!" was awarded both the People's Choice and Judges' Choice awards at the CHI PLAY 2015 Student Game Design Competition. One of our subsequent papers regarding BMRS studies #2 & #3 also received an honourable mention (Top 5%) award at CHI 2019.



