

Does ω^* know its right hand from its left?

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I'm going to talk about an old question of van Douwen: Are the shift map and its inverse conjugate in the autohomeomorphism group of ω^* ? By the late 1980's, van Douwen and Shelah proved that it is consistent they are not conjugate. Specifically, any autohomeomorphism witnessing their conjugacy would need to be nontrivial (van Douwen), but it is consistent that all autohomeomorphisms of ω^* are trivial (Shelah). In this talk I will discuss the recently-proven complementary result: it is consistent that the shift map and its inverse are conjugate and, in fact, it follows from CH. I will also mention some further results (joint with Ilijas Farah) and open questions concerning the conjugacy relation on the autohomeomorphism group of ω^* .