Refutation of Browder's theorem

We assume the method and apparatus of Meth8/VŁ4 with Tautology as the designated *proof* value, **F** as contradiction, N as truthity (non-contingency), and C as falsity (contingency). Results are a 16-valued truth table in row-major and horizontal, or repeating fragments of 128-tables for more variables.

LET p, q, r, s, t, u: x, n, k, C, ℕ, Ω;
~ Not, ¬; + Or, ∨; & And, ∧; = Equivalent; > Imply; < Not Imply, ∈;
# necessity, for all or every, □, ∀; % possibility, for one or some, ◊, ∃;
y≤z (~z>y).

From: Ferreira, F.; et al. (2018). On the removal of weak compactness arguments in proof mining. arXiv:1810.01508 laurentiu.leustean@unibuc.ro

[page 4, numbering added]: In loose terms, one can prove Browder's theorem in a certain formal theory using the principle

$$\forall x \in C \exists n \in \mathbb{N}\ (x \in \Omega_n) \rightarrow \exists n \in \mathbb{N}\ \forall x \in C \exists k \leq n\ (x \in \Omega_k), \qquad (4.1)$$

where C is a bounded closed convex subset of the Hilbert space, and $(\Omega_n)_{n\in\mathbb{N}}$ is a sequence of open sets for the strong topology.

((#p<(s<%q))<(t&(p<(u&q)))) >
((%q<(t&#p))<(~(q&(p<(u&r)))>(s&%r))) ;
TTTT TTTT TTTT TTTT, TCTC TCTT TTTC TTTC,
TTTC TTTC TTTC TTTC (4.2)

Eq. 4.2 as rendered is *not* tautologous. This means Browder's theorem as framed is refuted.