Erratum

Common Fixed Point Theorems for Hybrid Pairs of Occasionally Weakly Compatible Mappings Satisfying Generalized Contractive Condition of Integral Type Revisited

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We are indebted to Valeriu Popa for pointing out our error in [1]. In looking again at the paper, we came up with the following example.

Let X = [0,1] with the usual metric, and define $f = g : X \rightarrow X$, $T : X \rightarrow CB(X)$ by fx = 1 - x, $Tx = \{0,1\}$. Since f = g, every point is a coincidence point, and fTx = Tfx. Also, H(Tx,Ty) = 0 for all x and y, and $d(fx,gy) \neq 0$ for $x \neq y$, so f and T satisfy the hypotheses of all theorems and corollaries in [1], but f and T have no common fixed point.

Thus, it is not surprising that there are a number of papers involving hybrid pairs in which the conclusion of the theorems is not a common fixed point, but a common coincidence point (see, e.g., [2–10]). To obtain a common fixed point, a number of theorems assume the strong condition that the common coincidence point is also a fixed point of one of the maps.

References

- M. Abbas and B. E. Rhoades, "Common fixed point theorems for hybrid pairs of occasionally weakly compatible mappings satisfying generalized contractive condition of integral type," *Fixed Point Theory and Applications*, vol. 2007, Article ID 54101, 9 pages, 2007.
- [2] A. Constantin, "Coincidence point theorems for multivalued contraction mappings," *Mathematica Japonica*, vol. 36, no. 5, pp. 925–933, 1991.
- [3] M. Imdad, A. Ahmad, and S. Kumar, "On nonlinear nonself hybrid contractions," *Radovi Matematički*, vol. 10, no. 2, pp. 233–244, 2001.
- [4] T. Kamran, "Coincidence and fixed points for hybrid strict contractions," *Journal of Mathematical Analysis and Applications*, vol. 299, no. 1, pp. 235–241, 2004.
- [5] I. Kubiaczyk and B. Deshpande, "Coincidence point for noncompatible multivalued maps satisfying an implicit relation," *Demonstratio Mathematica*, vol. 39, no. 4, pp. 855–862, 2006.

- [6] S. V. R. Naidu, "Fixed points and coincidence points for multimaps with not necessarily bounded images," *Fixed Point Theory and Applications*, vol. 2004, no. 3, pp. 221–242, 2004.
- [7] H. K. Pathak and S. N. Mishra, "Coincidence points for hybrid mappings," Rostocker Mathematisches Kolloquium, no. 58, pp. 67–85, 2004.
- [8] S. L. Singh and Giniswamy, "Concidences and fixed point theorems for single valued and multivalued maps," *Fixed Point Theory and Applications*, vol. 2004, no. 5, pp. 127–139, 2004.
- [9] S. L. Singh, K. S. Ha, and Y. J. Cho, "Coincidence and fixed points of nonlinear hybrid contractions," International Journal of Mathematics and Mathematical Sciences, vol. 12, no. 2, pp. 247–256, 1989.
- [10] S. L. Singh and S. N. Mishra, "Coincidences and fixed points of nonself hybrid contractions," *Journal of Mathematical Analysis and Applications*, vol. 256, no. 2, pp. 486–497, 2001.