Referee B's arguments are only around the fact that a paper has since then appeared in PRB reporting similar band structure results. This is not an argument, since (1) this appeared after our submission (we can of course cite it accordingly); and (2) that paper does not address the primary issue of recovering a finite value of L in this Mn2+ compound.

His second point is that one should not think of Mn2+ ionic limit, but the ion in the solid. The known and usual fact is that any transition metal ion has its orbital moment strongly quenched in a solid state environment and not enhanced. Therefore, the apparent surprise of needing a finite L value out of an ionic L=0 state by putting it in a solid environment is evident.

The third point concerning the O K edge raised by the referee B is completely irrelevant and makes it clear that the person has no understanding of this particular field. The physics of O K-edge is known to be very different with a lot stronger effect of band theoretic contributions compared to intra-atomic interactions that dominate transition metal 2p XAS. The fact that this person is not familiar with the field of XAS and its rigorous analysis became evident already in the previous round of refereeing. It was clear there that he is not even aware of the seminal and pioneering work of Sawatzky's group that actually established the puzzle and the resolution of 2p edge XAS from transition metal ions or the path-breaking work of Gunnarsson that provides the underpinning of all subsequent analysis similar spectroscopic data.

As far as the third referee is concerned, the claims in that report are simply ludicrous! The first claim is "This paper addresses issues

of interest to those working with multiferroics. Even though some of the results go beyond this field, I agree with Referee B that this paper should be published in a more specialized journal, such as PRB".

PRL is replete with papers dealing with multiferroics. You can easily put together a long list of papers on this topic published in PRL during 2008-2009. On top of that the referee actually admits that "some of the results go beyond this field"! I do not think that more is needed and forms a very good basis for an appeal.
The only other issue this person has is his perception how strongly we claim quantitative agreement and summarised in the sentences "I feel

uneasy with the categorical statement that the calculations unquestionably establish that the SOI is sufficient to explain the observed polarization. The good numerical agreement appears rather coincidental to me. When lattice relaxation is allowed, the magnitude

of the polarization changes significantly, and the direction of the polarization also changes somewhat. Clearly, the utilized numerical

techniques have limitations". Did we ever claim otherwise? Of course not! In fact, we ourselves perceive the limitations and discuss it explicitly in the manuscript and therefore, go beyond these calculations referred to by the referee and present many-body calculations to identify physics beyond what is reachable through ab initio calculations. Interestingly, the referee admits "I agree that

the presented results strongly suggest that large lattice distortions are not required to produce the polarization of the observed order of magnitude, and that the SOI could be the only interaction needed".

That is the most important point that we wished to extract from those calculations, followed by the remaining many-body and experimental results to explain how SOI can come about.

It is also important to notice the emphatic statement of the first referee who categorically states " I disagree with the second referee

that not enough new physics is presented to warrant publication in

PRL". It may appear a colored view when we claim that referee A appears to be the real expert in the field, in view of his supportive statements. However, we did point this out in our previous response as well, since the first round of very pointed and perceptive questions raised by this referee made this fact evident. We are sure that the Divisional Associate Editor from the field will be able to appreciate this point quite easily.
