Aetogate: Final Statement

We sincerely appreciate the willingness of the Society of Vertebrate Paleontology Executive Committee (hereafter the SVP-EC) and Ethics Committee to consider our allegations of ethical misconduct against Spencer Lucas and his colleagues. The SVP ethics guidelines contained no reference to academic misconduct or plagiarism at the time we first appealed last year. It is a tribute to the integrity and honest intentions of these committees, and their appreciation of the importance of these issues, that they opted to go through the trouble of expanding their guidelines and taking on a case which they could have easily dismissed as being outside their purview. We also appreciate that these committees had no prior precedent in dealing with this case to draw upon, and that such a rapid expansion of their responsibilities and activities cannot have been easy. Finally, we also recognize that evaluating the extensive scientific literature relevant to our allegations must have been a formidable task.

The statement issued by the SVP-EC on its findings contains many commendable points. We agree with the statements pointing out the dubious editorial practices of the bulletins produced by the New Mexico Museum of Natural History and Science (hereafter the NMMNHS) and suggesting improvements. We also appreciate that the ruling touched on the gross inadequacies of the investigation by the New Mexico Department of Cultural Affairs (hereafter the DCA) into these same allegations.

Nonetheless, there are many aspects of the SVP-EC statement which we find disquieting. The committee seems to have accepted the word of Lucas et al. on most of the important points, and completely ignored the hard evidence and arguments we presented refuting their claims. Moreover, it also seems to us that the SVP-EC has placed blame on the plaintiffs which is not justified. Given that the New Mexico DCA has indicated that it believes the SVP-EC's decision lets it off the hook, we feel that these points require some discussion.

Independent findings?

Perhaps the most critical point not addressed by the SVP-EC is what is meant by researchers "independently" producing the same findings. Our understanding of this phrase is that it refers to researchers working on the same or similar material producing the same conclusions without first being aware of each other's investigations and/or conclusions. In such a scenario, both parties have a valid claim to these conclusions, as they were truly arrived at independently, without the input of the other.

It has been documented both in the published literature and in Lucas's own testimony that Lucas and his colleagues *were* aware of the investigations and conclusions of Martz and Parker before their own publications were produced. In his

first response (published by the New Mexico DCA via the Albuquerque Journal), Lucas acknowledged that he learned from reviewing Parker's (2005) paper that Parker considered the "Desmatosuchus" chamaensis material to represent a new genus. Lucas also acknowledged that he did not agree at the time, and did not reach the same conclusion until later. This falsifies his subsequent claim to have reached the same conclusion as Parker "independently."

Similarly, a careful (or even cursory) reading of all papers by Lucas and his colleagues discussing *Redondasuchus* prior to the publication of Martz's (2002) master's thesis makes clear that they were still basing their understanding of the taxon on the incorrect interpretation of the holotype (contrary to later revisionist claims in Lucas' rebuttal). Moreover, Lucas' response claimed that Justin Spielmann corrected this interpretation "independently" of Martz in 2006...three years after Martz had presented all three of the junior authors with copies of his thesis. Again, this chronology makes their claim of an "independent" finding completely nonsensical.

It is clear from the publication history and Lucas et al.'s own statements that Parker and Martz made the critical reinterpretations *before* Lucas et al., and graciously informed them, and that Lucas et al. subsequently came to *agree* with the reinterpretations. This does not meet our understanding of an "independent" finding. Nonetheless, the EC's only comment on this subject is to note (p. 2) that "specialists working separately on the same fossil material can indeed reach the same conclusions about...aspects of the fossils." Our repeated point that this cannot be what happened in these particular cases was ignored. Given the importance of this point, this omission is extremely difficult to understand.

Allegations of Martz

The SVP-EC (p. 1) describes "plagiarism" as a "clear intent to take someone's work and pass it off as one's own." This is an important correction of Lucas et al.'s response, which attempted to restrict the definition of plagiarism to taking another's words *verbatim*. The University of Maryland provides a collection of links to the plagiarism policies of various universities. Very few of the links providing explicit definitions and discussions of plagiarism limit it to taking credit for verbatim passages, most specify (or at least imply) that paraphrasing does not prevent taking credit for another's work from being plagiarism:

http://www.umuc.edu/distance/odell/cip/links_policy.shtml#collection

However, the SVP-EC also implies, as Lucas et al. had previously, that the omission could not be considered plagiarism if it was accidental. Accidental plagiarism is still plagiarism, even if it was a mistake that was allowed to slip through inadequate peer review and editorial practices rather than a deliberate act. For example, the University of New Mexico, where at the time of the alleged infractions Lucas was an adjunct faculty member, has a Plagiarism Policy document for

Introductory Undergraduate Biology Labs which does not concern itself with intent but says "Plagiarism occurs when someone takes an original piece of work or an idea/concept, and allows others to believe it is their own ... unintentional mistakes are no excuse for academic dishonesty."

http://biology.unm.edu/ccouncil/Useful_Links/Tools/Biology_Labs_Plagiarism_Policy.doc

Both Lucas' response and the EC decision (p. 1) note that "it was an oversight of Spielmann et al. not to indicate by citation that J. Martz had previously reached a similar conclusion..." The word "oversight" is a loaded term implying that the omission was accidental and this implication again flatly ignores the arguments we presented. The SVP-EC follows Lucas' reasoning that the numerous citations of Martz (2002) in Spielmann et al.'s (2006) paper indicates they did not intend to slight him. However, as we have noted repeatedly, Spielmann et al. (2006) *only* cite Martz where they disagree with him, and are clearly claiming the corrected interpretation of the holotype osteoderm as their own. Indeed, the obvious familiarity Spielmann et al. (2006) had with the relevant chapter and figures of Martz's thesis makes the "accidental" nature of the claim all the more difficult to swallow.

Moreover, the omission was repeated in Lucas et al.'s (2007) paper on Late Triassic biochronology. In fact, this paper not only again credits Spielmann et al. (2006) with correctly interpreting the *Redondasuchus* holotype, but claims that Martz (2002) *incorrectly* interpreted it as post-mortem distortion (he did not), cementing Spielmann et al.'s (2006) sole claim to the correct interpretation. It is highly unlikely that this "oversight" would not only be made twice, but *expanded upon*, purely by accident. All these points were brought to the attention of the SVP-EC, but not addressed in their ruling.

Allegations of Parker

Our case regarding Lucas et al.'s academic scooping of Parker was based entirely on the chronology of events, and on points which Lucas acknowledged in his first response. Lucas and his colleagues published two full descriptions of "Desmatosuchus" chamaensis in 2002 and 2003. All parties agree that at some point (although they do not agree as to exactly when), Parker was able to examine the material. Lucas also acknowledges that in 2005, he learned that Parker thought a new genus was necessary for the material. Lucas further acknowledges that he did not agree with this at the time but later changed his mind ("independently"), at which point Lucas et al. (2006) produced a short (just over one page) paper giving a new name for the material. He did not notify Parker, ask Parker if he intended to publish a new name himself, or invite Parker to co-author the paper. We emphasize once more that all of this is based not on hearsay, but on evidence in the published literature and Lucas et al.'s own statements, and provides the basis for our allegations of academic theft.

In their responses to our allegations, Lucas et al. raised several claims for which they provided, to the best of our knowledge, no corroborating hard evidence. Parker subsequently responded with his own side of the story, which by contrast was supported by evidence in the form of dated emails to and from NMMNHS staff, dated pages in Parker's notebook, time stamped digital photographs of the material under study, and independent attestation. Even disregarding the great imbalance of evidence, these claims and counterclaims about exactly when Parker examined the collections, and whether or not Lucas et al. knew that Parker intended to actually publish the new name, do not alter the chronology outlined above. Nonetheless, the SVP-EC (p. 2) judged that these "conflicting testimonies" prevented them from "absolve[ing] either party of responsibility." This statement implies that the hearsaybased counter-accusations were central to our case rather than having been later raised by Lucas. One has to wonder if this was an impression given by Lucas et al. in their second response (which the SVP-EC has chosen to keep confidential) and unquestioningly accepted by the SVP-EC in spite of their presumed familiarity with our arguments and the hard evidence we presented.

Moreover, let us briefly consider how these hearsay claims impact our allegations. If Parker is telling the truth, he made certain that Lucas and his colleagues were aware of his intentions, and had received explicit approval to proceed with the renaming. Lucas therefore knew full well that Parker intended to publish a new name for the material, which would make the case is even more damning.

However, accepting Lucas' explanation of events does not improve the picture much. Lucas claims that, without knowing that Parker intended to present a new name himself, he *assumed* that Parker had no such intention. This was apparently such a safe assumption that he didn't even have to ask, and went ahead with publishing the new name. Is such an assumption either reasonable or ethical? This was not addressed by the SVP-EC.

Publicity

We also wish to address the SVP-EC's (p. 3) concerns about our "posting of opinion and correspondence about the allegations on the Internet" as having "not been helpful to resolving these matters." It is important to point out that the SVP-EC was not the only body we solicited to investigate our concerns. Our attempt to get any sort of fair and objective hearing out of the New Mexico DCA, the only body both responsible and empowered to take direct action in preventing future ethical misconduct in the NMMNHS, was an abject failure. We turned to full public disclosure as a last resort in encouraging action. Our open public discussion brought the matter to the attention of the New Mexico public, press, and scientific community, and their vocal concern is what motivated the DCA to mount a formal investigation. Moreover, the travesty of objective inquiry which followed was under the full scrutiny of the lay public and scientific community.

We attempted to shield the SVP Ethics Committee from the tumult as much as possible. We alerted the Ethics Committee to our intentions to go public, avoided posting most of our communications with SVP, and mentioned the Ethics Committee investigation as little as possible in our correspondence with the press. Although we deeply regret any inconvenience the publicity may have caused the Ethics Committee deliberations, we felt, and still feel, that this course of action was necessary faced with such a maddeningly uncooperative political body as the New Mexico DCA, especially considering we could not count on open support from any other official body.

The SVP-EC also claimed (p. 3) that our open discussion "polarized and biased the vertebrate paleontology community in a way that jeopardizes fair consideration of these matters as a community." We find this accusation difficult to understand. Making *all* the available correspondence available, and inviting open discussion of the evidence, is the surely the best way for members of the vertebrate paleontology community to develop the most informed and unbiased opinion. We have been careful throughout to publicize on the Aetogate web-site all public arguments made in favor of Lucas et al., as well as those favorable to our own cause.

We acknowledge that it would be unseemly and grossly unfair for every individual accused of ethical misconduct, no matter how slight, to have their accusations loudly hashed out in a public forum. We certainly don't wish for such noisy open debate to accompany every SVP-EC investigation. However, one might imagine a case where an unscrupulous researcher has a long history of ethical violations against colleagues and graduate students which are widely known but, for whatever reason, go unopposed for years, further emboldening the increasingly arrogant researcher and permitting him to commit further violations. In such a case, an offended party might eventually decide that enough is enough, and that the only way to discourage this behavior in the future is to disrupt the scientific community's maddening acceptance and apathy about the researcher's behavior with public discussion. Not that this is the case here; we are speaking hypothetically of course.

What is the best way to protect our work?

Finally, the SVP-EC also makes contradictory statements about the best way to keep one's work from being published by others. They first call for open communication (their fifth point on p. 3), suggesting that if Parker had notified Lucas and his colleagues that his manuscript presenting a new genus name for "Desmatosuchus" chamaensis had been accepted, Lucas et al. might have courteously allowed Parker to publish first. However, on the same page (sixth point), they argue that students intending to publish theses or dissertations in other venues should "be wary about circulating their work until publication is well under way," presumably referring to Martz's open distribution of his master's thesis to Lucas and his colleagues.

Which is it? Parker, concerned about having his work misappropriated, kept the acceptance of his publication secret. Martz, wanting to have his work freely available (and perhaps wishing to prevent plausible deniability) distributed his thesis openly. Neither tactic prevented misappropriation, yet it is implied that both Martz and Parker are at least partially to blame for what happened.

It should also be pointed out that citing Parker's case in this manner seems to be taking Lucas et al.'s word that Parker never informed them of his intention to publish. Parker claimed, based on communication with the authors of the original papers describing "Desmatosuchus" chamaesis, that he had been fully communicative with Spencer Lucas, Andy Heckert, and Kate Zeigler about his intention to publish the new genus name (which Lucas et al. deny; were Heckert's and Zeigler's testimony even sought?). Parker also acknowledges that, in the wake of the earlier Revueltosaurus fiasco, he deliberately did not inform Lucas et al. that this paper had been accepted out of fear of being scooped (which Lucas et al. all accept). If Parker's claims are truthful, then he had been completely communicative with Lucas and his colleagues that he intended to publish, and whether he told them the exact date and venue is a moot point. Again, the SVP-EC seems to have uncritically accepted Lucas et al.'s hearsay claims that Parker was completely uncommunicative about his intentions. The conflict in hearsay claims between Lucas et al. and Parker seem to make clear that someone's version of events must be false, but why is it assumed to be Parker's, especially when all the hard evidence supports his claims?

Concluding comments and recommendations

As participants in the investigative process, we feel we are in a position to comment on how the case was handled. We therefore wish to make some observations and suggestions that may be helpful if, as we sincerely hope, the SVP-EC continues to consider cases of academic misconduct within its purview:

1) A body asked to investigate any sort of wrongdoing cannot count on the truthfulness or rationality of either party, but must allow its own careful reading of the hard evidence presented to determine who is making sense and telling the truth. The SVP-EC's approach (particularly in Parker's case) was essentially to ignore the publication evidence and to throw the case out when the hearsay testimonies contradicted each other. Such an approach makes it impossible to evaluate any case of academic misconduct, as a hypothetical guilty individual accused of wrongdoing has only to deny the charges and make false statements about their actions and intentions in order to be acquitted. We suggest that the Ethics Committee should have devoted more attention to the actual content of the publications (and the arguments of the plaintiffs as well as those of the accused) than was reflected in their ruling.

2) The investigation essentially consisted of two rounds of correspondence between the accusers and accused: our initial complaint, Lucas et al.'s first response, our rebuttal to that response, and Lucas et al.'s final response. We feel that a third and final round might have helped clarify matters. We also suggest that in the future, each response by either party be *immediately* forwarded to the other, along with a reasonable deadline (say, one month) to respond. This would limit the investigation time to about three months (for two rounds) or five months (for three rounds). Finally, live discussions with both parties (in person or by telephone) may help to wrap up any final points the Ethics Committee wishes to clarify.

We ourselves have certainly not been innocent of either error or vitriol during the past year. If we have produced bad feelings or polarization within the community, we can say only that we prefer it to buried resentment and the risk of continued offenses. Vertebrate paleontology is a field where most participants share a tremendous enthusiasm for their work, and open discussion and communication are part of what make this field so rewarding. We are appalled at the idea of this field becoming more close-mouthed, untrusting, and resentful, because some are more comfortable with peacefully accepting gross academic misconduct than risking turbulent debate to combat it. The SVP-EC's willingness to tackle this case suggests they share our feelings on the matter, even though we are disappointed with many aspects of how they handled the case. We sincerely hope they will continue to take an interest in encouraging professional and ethical standards.

Sincerely,

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