LETTERS

Housing of laboratory primates

Sir,

We are dismayed to read in the article by Schapiro and Bloomsmith (2001) published in *Animal Welfare* that the authors misquote us by asserting that we "claim" in three different publications (Reinhardt 1997; Reinhardt & Reinhardt 1999, 2000) "that primates housed in darker, lower-row cages **suffer**" (see *Animal Welfare 10*: p 387, p 391).

In none of the three publications did we make such an unqualified statement. In fact, we have made our point explicitly clear in our article published in 2000, where we note on p 143 that "Lower row housing per se does **not** imply that the animals 'suffer behaviourally', but that lower row-caged subjects are likely to be more disturbed by the presence of fear-inducing personnel [eg investigator approaching a cage to remove an animal for a painful experimental procedure] than upper row-caged subjects" (Reinhardt & Reinhardt 2000, p 143).

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References

Reinhardt V 1997 Lighting conditions for laboratory monkeys: are they adequate? Animal Welfare Information Center Newsletter 8(2): 3-6 (http://www.nal.usda.gov/awic/newsletters/v8n2/8n2reinh.htm)

Reinhardt V and Reinhardt A 1999 The monkey cave: the dark lower-row cage. Laboratory Primate Newsletter 38(3): 8-9 (http://www.brown.edu/Research/Primate/lpn38-3.html#cave)

Reinhardt V and Reinhardt A 2000 The lower row monkey cage: an overlooked variable in biomedical research. *Journal of Applied Animal Welfare Science* 3: 141-149

(http://www.awionline.org/Lab_animals/biblio/jaaws1.htm)

Schapiro S J and Bloomsmith M 2001 Lower-row caging in a two-tiered housing system does not affect the behaviour of young, singly housed rhesus macaques. *Animal Welfare 10*: 387-394

Sir,

We stand corrected for misattributing the word "suffering" to Reinhardt and Reinhardt in our recent paper (Schapiro & Bloomsmith 2001). We apologise for the consternation it may have caused the Reinhardts.

Through a series of publications (Reinhardt 1997; Reinhardt & Reinhardt 1999, 2000), the Reinhardts have identified an understudied environmental factor, illumination, and have discussed its possible effects on primate well-being, and on the findings of the biomedical studies in which these primates participate. We agreed with the Reinhardts that this issue was important to assess, and it is to this general inquiry about the quality of life of some nonhuman primates that we were responding when conducting our study. In this vein, we stand by the data in our paper (Schapiro & Bloomsmith 2001). Our analysis, at our facility, with the measures we applied, did not support the hypothesis that monkeys living in darker, lower-row cages showed diminished psychological well-being. There were no measurable differences in behaviour between monkeys housed on upper rows and those housed on lower rows. There are several implications of these findings that contradict the basic theme of the Reinhardts' writings on this topic (Reinhardt 1997; Reinhardt & Reinhardt 1999, 2000). According to our data, there is no need to view housing row as a potential confounding variable in biomedical research. Similarly, there is no empirical support for intimating diminished psychological well-being among subjects housed on the lower row. While lower-row cages are darker than upper-row cages at our facility (Schapiro et al 2000), as they probably are at most facilities, referring to the lower row as a "cave" (Reinhardt & Reinhardt 1999) seems to us to imply negative connotations extending beyond diminished levels of illumination. These

negative connotations are not supported by the current empirical data.

We consider this series of articles (the Reinhardt articles and our own) to be an example of the scientific process in action. Our article is one small contribution to the thorough, quantitative assessment and scientific debate that should be conducted on the issue of illumination in animal laboratories, and on similar issues that might be expected to influence the wellbeing of laboratory primates. We thank the Reinhardts for bringing attention to this topic, and for contributing to the accuracy of our report.

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- Schapiro S J and Bloomsmith M 2001 Lowerrow caging in a two-tiered housing system does not affect the behaviour of young, singly housed rhesus macaques. *Animal Welfare 10*: 387-394
- Schapiro S J, Stavisky R and Hook M 2000 The lower-row cage may be dark, but behavior does not appear to be affected. *Laboratory Primate Newsletter* 39: 4-6