We thank Drs. Wang and Patten (1) for their comments on our recent article (2) on reporting bias in the relation between job strain and depression. The question is how to obtain measures of psychological working conditions that are not biased by the mood of depressed patients or, to put it another way: How do we obtain the counterfactual exposure ratings that depressed patients would have given if not depressed?

Wang and Patten advocate measures obtained from the individual study participants prior to the onset of depression. We advocate the use of aggregated measures obtained from
groups of colleagues with homogeneous working conditions. In our opinion, our strategy has advantages compared with the approach put forward by Wang and Patten.

Grouping of exposure breaks the inherent and uncontrollable ties between individual self-reports of exposure and outcome. This enables us to obtain exposure measures for depressed workers that are unaffected by reporting bias due to negative affectivity or other personality traits, as well as mood, during the whole course of disease from the early insidious stage to fulminate disease. Exclusion of depressed workers from follow-up in longitudinal studies may not alleviate reporting bias because subthreshold symptoms during the preclinical stage of depression may influence reporting of working conditions (3).

As stated by Wang and Patten, heterogeneous working conditions within groups are a major challenge, especially if heterogeneity between groups is limited. We therefore designed our study with the aim of identifying groups of few workers that shared leadership, colleagues, and work content and observed that the exposure homogeneity within these groups was higher than often seen for chemical exposures (4) but at the expense of a reduced exposure contrast compared with the individual data, as expected. Analytical grouping strategies of psychological exposures can be improved, for example, by the inclusion of other robust predictors such as profession, tasks, seniority, sex, and education in the estimation of exposure levels in combination with high between-group exposure contrast.

Risk estimates obtained from grouped exposures are not expected to be attenuated as stated by Wang and Patten. This is because grouping leads to predominance of Berkson-type error in exposure assessment (5). Analytical grouping strategies that account for random misclassification of chemical and physical exposures in the work environment are well established (6).

Besides, circumventing biased self-reporting of exposure grouping provides an exposure assessment that reflects the shared psychosocial working environment rather than the appraisal of an individual worker. For preventive purposes, such information puts the emphasis on improving the working environment rather than strengthening the individual worker’s coping with this environment, for example, by work-hardening programs (7, 8).

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