Gender division of labour on cattle farms and WMSD prevention strategies

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1. Introduction
The objective is to show how an approach to work organisation focusing on gender makes it possible to document the effects of the gender-based division of labour on men and women’s health. The underlying research aims to develop MSD prevention actions for a health and occupational safety office belonging to the French social security department for agriculture. The approach is based on the idea that men and women are not exposed to the same exposure. This can lead to different effects in terms of WMSD risks and men and women’s strategies for protecting their health.

2. Methods
This research was performed in the agricultural field, and more specifically in the cattle breeding sector. This sector is subject to substantial seasonal variations and reports a high level of MSD. Data were collected from work activity observations on four farms, but also from semi-structured and self-confrontation interviews and a monthly self-administered questionnaire about pain felt during the summer season when work is at its most intensive. An analysis of these data made it possible to characterize the breakdown of tasks according to gender, MSD risk exposure factors, and the strategies implemented by men and women to reduce pain. In this paper, we shall examine the way work is organized on one traditional family farm where milking is performed by the man and the woman twice a day. This activity is carried out in a stanchion barn inducing a high level of biomechanical exposure, caused by painful postures, repetitive movements and the risk of being kicked by the cows.

3. Results
The couple on the farm divides up the number of cows to be milked on each side of the barn equally. However, the movements, tasks and variability management are not the same for the man and woman. The woman starts at the back of the barn for several reasons: the equipment is heavy to carry and she prefers to do this at the start of milking when she is less tired and because she has to water the calves at the back of the barn as well as clean the rags at the end of milking in the dairy located at the barn entrance. The man starts his work on the right-hand side at the entrance of the barn and gradually moves towards the back where he has to feed the calves with cereal at the end of milking and then feed the cows using his tractor. Variability management is based on work-sharing according to skills learnt from experience but is also linked to gender stereotypes. When a cow is agitated and is likely to kick, the man deals with that animal. The woman is afraid of being knocked over or kicked. She uses verbal and visual anticipation strategies with the cows: she talks to them and observes them just before milking in order to anticipate kicking. She keeps her right hand on the cow to reassure it while she is cleaning its teats. She uses the dog if the cow seems excitiable. The man uses other more physical strategies such as shoving the cows to let them know he is there. The man was born into a cattle breeding environment and has developed gestural strategies to reduce the biomechanical exposure of milking: he uses both hands all the time when cleaning their teats. When the man moves from one cow to another, he swings his body from one leg to the next so that he does not have to stand up and then squat down again. When performing the same task, the woman has to deal with more biomechanical and psycho-social factors exposing her to a greater risk of MSD.

Besides the shared task of milking, the woman accomplishes administrative tasks and the man maintains and repairs the agricultural equipment. In the summer season, the man uses his tractor to labour in the fields. He is exposed to the tractor’s vibration, his static posture and the twisting and turning of his trunk and head. He feels a little pain everywhere but especially in his back. The woman is in charge of collecting what they grow in order to prepare the family’s provisions for winter. She is exposed to repetitive
movements and awkward postures. The pain felt is mainly in her fingers, the base of her skull and her neck. She suffers from more intense and frequent pain than the man.

4. Discussion
WMSD prevention actions must take into account the different activities of men and women according to the gender division of tasks in order to reduce the risk of women being exposed to WMSD and in order to support strategies for protecting their health (e.g. learning how to drive a tractor, learning how to approach an animal, etc.).