



Research Student's Annual Review Report 2011-12

Please answer the following questions carefully, and return this form and your completed piece of work, by email, to Lene Hyltoft (L.Hyltoft@sussex.ac.uk). It is essential that this arrives by 4.00pm on Friday, JUNE 8th.

Your responses to the question on this form are intended to provide information to help assess your progress; they are also intended to provide an indication of any areas where your department and/or school might provide additional support in order to assist you.

Please enter text, or click with the mouse, the relevant boxes below. Please note you can 'tab' through this document to complete your answer in each box.

Please indicate if you wish your supervisor/s to have access to this report?

YES ☐ EI ☐ NO ☐

Normally this report is passed to your assessor. If there are any aspects of this report that you do not wish your assessor to see then please email Lene Hyltoft (L.Hyltoft@sussex.ac.uk) asap explaining which parts you do not want your assessor to see and why.

Name: Female 2	Degree: MPhil DPhil <input type="checkbox"/>
	EdD DSW
Current address for correspondence:	Date of starting research: 01/10/2011
	Current registration status:
	Full-time Part-Time
	Continuation

Main Supervisor's name: Karen McComb

Please list dates and reasons for any periods of intermission: n/a

1. Please state your source of funding (even if your main source of funding has now expired) ?

GTA and BBSRC

2. What stage has the work on your thesis reached? Please relate your answer to the plans given in your research outline, explaining any changes and including recent developments. If you are on fieldwork, or have completed it in the past year, please outline progress so far, and any problems that have arisen. Please list the chapters you think will constitute your final thesis and estimate what percentage of the total work for each chapter you have already completed. It is understood that, if you are a first year student, such plans may be provisional.

Description of Overall Progress

Since beginning at Sussex last year, I have reviewed the literature around my research area, and worked with my supervisor to develop a thesis plan, research questions, and paradigms to test these. I am planning to focus on facial expressions in horses, and have summarised my progress this year under subheadings relating to my main areas of work.

Experiments using photographic stimuli to test horses abilities to read conspecific cues to attention

I am investigating whether horses are sensitive to conspecific facial cues indicating attention to food, and if so which specific cues (e.g. head, eye, or ear orientation) convey the most information. I took photographs of either the left or right profile of the dominant horse in each of three established field groups attending to bucket of food on the floor 1m away. Dominance was established through collecting all occurrence aggression data (6 hours of observations on each group, as in Flauser & Krüger, 2008: *Behavioural Processes*, 79, 76-83). The image of the horse was then extracted and placed onto a uniform white background, and auto adjusted for levels and brightness in Photoshop. I also took photos of a horse wearing eye and ear masks. These masks cover the eyes (and I have modified one to cover only the ears) and are commonly used for horses that are sensitive to flies. The nature of the fabric means that although horses can see out of them, the external the view of either the eyes or ears is obscured. I extracted these masks from the photographs, and placed them onto my original stimuli. Therefore I have six photographs for each model horse (whole head left and right; eyes covered left and right; ears covered left and right).

I then used these stimuli in a feeding choice paradigm, and have ran trials with subordinate horses (n=6) in a within subjects design (total 18 trials). I have also begun trials with unfamiliar horses (n=6).

Experiments using live models to test horses abilities to read conspecific cues to attention

This mirrors the above experiment, except that I am using a live model to investigate the sensitivity of horses to conspecific facial cues indicating attention to food. I have trained two horses at different centres to expect food from a discreetly marked bucket. I have piloted methods to give an observer horse the choice of buckets after watching the model attending to one of the buckets, and established a paradigm with the model and observer in opposing stables and the buckets in the centre of the yard. The model horse will either have the entire head exposed, or wear either the eye or ear mask, and a between subjects design will be used. I have begun running trials on this in one centre (n=4). In addition to this I have also developed a gaze following test using a similar paradigm with horses in opposing stables. In this test the attention of the model horse is attracted by a person appearing with food from passageways alongside the observer's stable, so the observer cannot see the stimulus.

The sensitivity of horses to emotional expressions

We have piloted and developed a paradigm for measuring the abilities of horses to discriminate between different emotions in conspecifics and humans. Two buckets of food are placed under photographs of either humans or horses displaying different facial expressions, separated by a small barrier placed centrally between the photographs. The horses are led up to a point 2 meters away from the barrier, and then released so that they have the choice to approach one (or neither) of the photographs. This paradigm was developed through co-supervision of undergraduate projects, during which we ran 8 trials with human photographs, and 15 trials with conspecific photographs.

A further paradigm we developed from this work is a method for presentation of the photographs in both monocular visual field of the horses.

Horse FACS

This strand of work aims to adapt the human Facial Action Coding System (FACS, Ekman, Friesen, & Hager, 2002) for horses. FACS is a system for that quantifies facial expressions based on the mimetic musculature. We set up links with Dr. Bridget Waller and Dr. Anne Burrows, who have previously modified the human FACS for various primates and dogs, and are organising a dissection to explore the equine mimetic musculature. I am currently training as a human FACS coder and collecting observational videos for analysis.

List of Chapters and proportion of work completed for each. Literature review -10%.

Sensitivity of horses to conspecific cues of attention – 10%
Sensitivity of horses to conspecific cues of emotion – 5%

Application of horse FACS to sensitivity of horses to conspecific cues of emotion and attention – 0%

The sensitivity to attention in conspecifics in two species of equid with different social structures: the domestic horse (*Equus caballus*) and Grevy's zebra (*Equus grevyi*). – 0%

Conclusion – 0%

Comment on and estimate the percentage of empirical work required for your thesis that you have completed to date.

I am now running the test trials for one chapter (sensitivity to conspecific cues to attention), and I estimate that I have completed 20% of the empirical work for this chapter. I have established the paradigm for another chapter (sensitivity to conspecific cues of emotion), and am planning to begin the test trials later in summer. I estimate that I have completed 10% of the empirical work for this chapter.

I have begun collecting video observations of natural behaviour displayed by horses that will be used in the development of the horse FACS system, and estimate that I have completed 5% of the empirical work for this chapter.

2a. In order that your progress can be assessed you are required to submit a piece of written work completed over the past year. This could be a draft chapter or a draft manuscript. However, other forms of submission are permissible. Please discuss the most appropriate form of submission with your main supervisor. This piece of work must not exceed 8,000 words. It will be assessed formally by your assessor who will meet you before June 30th to discuss the content and standard of your work and discuss your progress more generally. Your assessor will then submit a report to the Director of Doctoral Studies. Please enter the title and total number of words of your submission below. Please also list all discrete pieces of work you have completed over the past year (e.g., completed an experiment, conducted a

series of interviews, analysed a dataset etc..).

Title: The sensitivity of horses to attentional cues in humans and conspecifics.

Word count: 5,029

List of completed work:

Pilot work: establishing a paradigm for investigating the sensitivity of horses to conspecific and human facial expressions that indicate emotion.

Pilot work: establishing a paradigm for investigating the sensitivity of horses to conspecific attentional cues from photographs.

Pilot work: establishing two paradigms for investigating the sensitivity of horses to conspecific cues of attention in live models. Collected 18+ hours of observational data to assess the dominance hierarchies in domestic groups of horses.

Literature review: The sensitivity of horses to human attentional cues.

Literature review: The sensitivity of horses to conspecific attentional cues.

Literature review: Short general review and thesis outline.

Literature review: The assessment of dominance in the domestic horse.

3. Do you have any recognised disability which has been formally assessed?

YES ☐ NO ☐

If YES, has this been adequately supported?

n/a

4. If you are on continuation, do you now have a job?

N/A Not on continuation YES ☐ NO ☐

If YES, what are its hours of work?

4. (a) Has work on your thesis been significantly impeded by any non-academic factors (e.g. illness or financial)?

YES NO

If YES, please give details:

(b) Do you expect it to be so in the next few months, or the year ahead? (e.g. by job change, childbirth)?

YES NO

If YES, please give details:

5. When do you realistically expect to submit your thesis? Please provide a date in the box below. If this is not before your final funded date then please explain why. Your final funded date will vary depending on your source of funding. For example for a GTA this will be 3 years after the beginning of your programme. Your main supervisor can confirm this date.

Oct 2014

6. (a) Have you undertaken any courses or training in the past year to enable you to acquire skills to assist the completion of your research, or to obtain relevant transferable skills of benefit to your future career?

YES ☐

If YES, please list these courses and marks for all assessed work below and

comment (in a few words) on how useful they were to you.

Linear models (not assessed). This course was very useful as a refresher on

statistics.

Starting to teach (not assessed). *Marking and feedback* (not assessed). Both of these courses were to assist me when starting as a graduate teaching assistant. I found both of these courses very useful, particularly in improving my confidence.

FACS training (assessment not taken yet). I am currently training as a human FACS coder, to help with the development of a horse FACS as part of my DPhil.

CVs for PhD researchers (booked for 13th June).

(b) Are there any training requirements, identified at previous meetings or during meetings with your supervisor/s, that you feel have not been met?

YES NO ☐

If YES, please state:

(c) Is there any further training which you feel you need? You may want to identify specific transferable skills courses (<http://www.sussex.ac.uk/doctoralschool/internal/researcherdev/>) available

campus which can be recorded as part your skills portfolio. It is expected that every student should attend 2-3 of these per year. Please ensure you have discussed this with your main supervisor.

(d) Please comment on the value of any training or courses undertaken during the previous year, indicating the specific training/courses undertaken and any suggestions you may have for how these might have been improved.

I found the Starting to Teach and Marking and Feedback courses particularly useful in supporting me when starting as an Associate Tutor. Perhaps more or a wider variety of courses that focus on teaching/ teaching styles would be useful.

8. How many times have you been in contact with your main supervisor, and has that been satisfactory (in the case of joint supervision, please indicate the frequency of contact with both supervisors)? This can be recorded as the average number of hours per week but please clarify the metric you are using.

On average, one meeting a week of approx. 1hr. I feel that this has been
s a t i s f a c t o r y .

9. Do you feel that you have been receiving adequate and appropriate feedback and advice from your main supervisor?

YES EI ☐

Please state any ways in which you feel this might be improved.

n/a, I am happy with the advice and feedback that I have received from my
s u p e r v i s o r .

9a. Overall, then, how would you rate the supervision and guidance you have

received this year?

Excellent ☐

Satisfactory ☐

Cause for concern ☐

If you have selected "Cause for Concern please explain why below.

10. Please indicate how many meetings you and your supervisor have recorded on the event system in Sussex Direct.

36

11. Please indicate any further areas in which you feel the support provided by those involved in your supervision might be improved (e.g. including support provided via additional supervisors, or other members of your supervisory team).

n/a

12. Is it clear to you who you should go to if you encounter problems with your research, or difficulties with a supervisor?

YES EI ☐

If NO, please indicate where clarification is required?

13. Are there any further specific areas relating to your research where you feel you are in need of additional support or guidance?

YES NO EI

If YES, please indicate the area/s and any suggestions as to what might be

provided.

14. Please indicate any areas where access to resources – e.g. via the library or availability of computing resources – might be improved in order to assist you with your research.

It would be good if we had a copy of Adobe Photoshop for Mac rather than just PC. I have a Mac and am manipulating photographs to create stimuli for some of my research. The copy of photoshop that I currently have can only be used when attached to the network and in limited circumstances, which is not ideal, particularly when I am on fieldwork.

15. Are sufficient opportunities available to you for contact and interaction with other research students?

YES ☐ EI ☐

Please state any ways in which you feel this could be improved.

A small social event, such as tea and biscuits, after the colloquia would be a good opportunity to see people and discuss the talk.

16. Does your Department/School provide a sufficient range of activities to enable you to discuss your research, and related areas of interest, with others engaged in similar fields of study?

YES ☐ NO ☐

Please indicate any suggestions you may have for how this might be improved.

17. FIRST YEAR STUDENTS ONLY:

Was the programme of events arranged by your Department/School to support your induction to the University satisfactory?

YES ☐ NO ☐

Please state any specific areas in which this could have been improved, or anything additional you consider that should be provided in future years.

18. Your Research Training Support Grant (RTSG) Budget

Please copy and paste your budget spreadsheet showing your RTSG expenditure for 2011/12 into this field:

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19. Please indicate any further comments you may have, or any further suggestions for how your experience as a research student could have been/could be enhanced further.

n/a

Please enter the date of completion of this report: 07/06/2012.

and email the completed form to Lene Hyltoft (L.Hyltoft@sussex.ac.uk).