Response of the Institute of Psychology to the REPORT ON THE RESEARCH REVIEW OF PSYCHOLOGY OF NINE UNIVERSITIES IN THE NETHERLANDS (Research Review Psychology 2017)

First of all, we would like to thank the committee for their balanced view of our performance and development between 2011 and 2016. We appreciate both the compliments and the suggestions for further improvement, and we see the overall judgement of the review committee as fair and to the point. We would also like to express that we enjoyed the site visit and the way the review committee engaged with the research staff members of our institute.

The committee has reviewed the Dutch Psychology on a national level and against an international benchmark, and our work at the Leiden University Institute of Psychology according to the latest Standard Evaluation Protocol. The committee's general conclusion about Psychology research conducted in the Netherlands, is that they were "impressed by the high quality of Psychology research in the Netherlands and can fully subscribe the conclusion... that Dutch psychology performs well above the international benchmark."

The review of our Institue consisted of the quality of our research, our societal relevance, the viability of the institute, as well as our PhD programme and our policy with respect to research integrity. The committee's three conclusions were "very good" (quality of the research), "excellent" (relevance to society) and "excellent" (viability).

We recognize that the committee judged the quality of our research as "very good". We second the conclusion that our institute has "recognizable, well-structured, original and highly visible research programmes, all of which are methodologically versatile with a common thread being the use of neuroscience methods (e.g. fMRI)." As direct research funding is very limited, our institute has been very successful in obtaining external research funding (second stream funding in particular) and we fully subscribe to the committee's conclusion that "within each research programme a number of staff members have been successful in attracting significant research funding from NWO and/or the ERC, creating an outstanding grant acquisition record." We also second that this position is fragile given that the success of the institute is so much dependent on external funding.

The committee was impressed by the "excellent" relevance to society of our institute. They recognized that a deliberate strategy was in place, with a focus on the new clinical facility, and that our strategy has created a profound "awareness of the importance of societally relevant research ... both among programme leaders and the PhD students the committee interviewed." As it is a deliberate strategy of our institute to combine the goals of fundamental research with societally relevant research, we feel encouraged by this strong support and will continue to pursue our translational work. For us, this knowledge chain from fundamental/curiosity-driven science to societal applications and back constitutes an important and distinguishing characteristic of our research profile.

With respect to the third main dimension of the assessment of our institute, the committee rates its viability as "excellent". We are pleased with this recognition and even though our institute is more reliant on grant-based funding than direct funding, our very successful grant acquisition record holds promise for stable future funding. We were also pleased to read that the committe concluded that "staff qualifications are extremely high, researchers are successful in all career stages and the current hiring policy is impressive."

Although the committee only provides one explicit recommendation at the end of the review, in discussing our research programme they give several additional recommendations, which are summarized below. In short, we appreciate these recommendations as they indicate that the committee has succeeded in positioning our research programme in the broader framework of

psychological science internationally, with its growing emphasis on combining fundamental and translational science in an increasingly versatile interdisciplinary context. Below, we indicate how we will try to implement each of the recommendations in our institute (for a full description of the recommendations we refer to the assessment report).

Recommendation 1. *Beta-funding and research infrastructure*. As the partial beta-funding does not depend on the number of students, nor is it corrected for inflation, the conditions and amount of beta-funding could be further improved.

As stated in the Research Review report, and based on the CWTS analyses conducted, "the committee was impressed by the high quality of Psychology research in the Netherlands and can fully subscribe the conclusion... that Dutch psychology performs well above the internaional benchmark." The Leiden Institute of Psychology has developed as one of the best institutes in psychology, and this is in part due to the partial beta-funding provided. However, as was also stated in the *Sectorplan Sociale Wetenschappen* (2014), the position and financing of research in the Behavioral Sciences shows relative deterioration, and there is a lack of structural funding for increased laboratory facilities needed in a field that is moving towards the beta-sciences (pp. 25-28).

In order to stay at the top internationally and maintain the quality of our present reseach output, continuous, stable and sufficient financial support in the form of beta-funding remains necessary. We are concerned that such funding is currently lagging behind the strong growth of the institute and the lack of sufficient funding of research facilitities consititutes a main threat to both the viability and research quality. As the committee recognizes, the vast majority of our research activities can be characterized as beta-research in that it requires laboratory facilities and technical infrastructures typically seen in the biomedical sciences. This can be expected to grow further in the field of psychology, both internationally and nationally. Our institute currently has a leading position in this field and our aim is to maintain and improve this position with excellent research at the forefront of psychological science.

We are highly motivated to collaborate with the Faculty Board to improve this additional funding for research infrastructures, however we question whether the number of enrolling students should be the single or most important parameter. In fact, as we have already witnessed in the past few years, trying to attract more students to obtain more research funding produces significantly negative side-effects, for example in terms of the administrative load for research faculty and the excessive pressure on laboratory facilities for students' Master theses projects. These developments have even led our institute to ask for a numerus fixus from the academic year 2019 onwards. It also means that a further growth of our beta-biomedical research and adequate infrastructure consisting of more laboratory facilities and personnel constitutes a basic requirement necessitating more professional lab facilities (e.g., in LUBEC, Silvius, or Einthoven building) and lab personnel (i.e., more auxiliary staff than presently formally permitted according to university guidelines) *independent of the number of students but conditioned on research potential and performance in and of itself*. Clarity and predictability regarding funding such beta-facilities is of crucial importance for strategic plannning, human resources policy and financial management.

Recommendation 2. *Research strategy*. The present heterogeneity in research as a result of a bottom-up approach could be guided towards a more coherent research programme.

We agree with this suggestion of the committee. Although we believe that our successes are for a large part due to this "bottom-up culture" of promoting creativity and excellence, we are also in a position in which a more coherent research programme could indeed help to facilitate even more productive research collaborations and will further improve the scientific and societal visibility of our programme. We are already in the process of organising several meetings with the research leaders of our institute to develop a more coherent research mission. In fact, and perhaps more than was evidenced in our self-evaluation report, much of our research already falls under broader themes such as health (with a relatively strong translational component) and social/cognitive neuroscience (with a relatively strong basic science focus). Such overarching themes are strongly related to (inter)national science agendas such as those set forth in the *Nationale Wetenschaps Agenda* and the *EU Horizon 2020* programme. We are currently redefining our mission to focus and develop an overarching research programme with cross-discipline collaborations to foster excellent science with societal implications.

Recommendation 3. *Research collaborations*. Notwithstanding strong research collaborations with other faculties and the Institute of Education and Child Studies, potentially fruitful forms of collaboration with other institutes within the Faculty of Social and Behavioral Sciences could be proactively explored.

We understand the committee's point, but our institute has slightly different goals and ambitions. The committee is correct in noting that "in view of the research interests in clinical and neuroscience aspects of human functioning it is in fact natural to reach out to the LUMC", to actively participate in two interdisciplinary university wide Resesarch Priority Areas, and to collaborate with the Institute of Education and Child Studies. This is less the case with regard to Political Science and Cultural Anthropology and Developmental Sociology, where indeed differences in the level of analysis and methodological approach used are substantial. We strongly believe that scientific progress is primarily based on the internal dynamics within a field of science in which diverse scientific disciplines are mutually interacting and scientific developments can organically emerge and prosper. Given that we are in the same faculty, we are always open to collaborations with neighbouring insitutes, as long as it promotes our primary research goals.

Recommendation 4. *PhD monitoring system*. The duration and completion rates of PhD projects might benefit from a stricter progression monitoring system.

This is an excellent suggestion. Although the duration and completion rates of PhD projects is monitored in yearly evaluation interviews with thesis supervisors, we regret that a more comprehensive and systematic monitoring system is not yet in place. We hope that implementing such a monitoring system will take place at the level of the Graduate School or at university level. We are aware of intentions and plans to introduce such a comprehensive system in which the selection of applicants, admission procedure, performance interviews, scientific and societal output, duration and (expected) completion of projects, etc. are systematically monitored and evaluated. We are more than willing to help pilot and implement such a university-wide monitoring system in our institute.

Recommendation 5. *Tenure track system*. The system for promotion to associate professor and full professor is poorly developed and Faculty and University are advised to address this issue.

We agree on the benefits of such a clear and transparent system, both with regard to personnel development and for the international outreach and attractiveness of our Institute. We would thus very much like to further develop a system for promotion to associate professor and full professor to further attract and retain talent at our institute. We hope that the recent "Conceptrapport over de bevordering van wetenschappelijke excellentie en talentbeleid" will provide the necessary input for such a system and that our institue in collaboration with the boards of our university and faculty will be able to develop an adequate and internationally competitive system for promotion to associate professor and full professor.

Within this context, we would like to bring up a related point, based on the following quote of Isaac Newton "If I have seen further it is by standing on the shoulders of Giants" and request that special attention for exceptional talents has to be combined with guaranteeing a work climate in which each researcher is stimulated and facilitated to contribute to the group process of scientific research. Especially in teaching-intensive institutes such as the Institute of Psychology, it is a great challenge to provide a research-intensive work environment for the necessary critical mass of researchers in the institute. To achieve this aim we would like to start discussions with the Boards of the Faculty and University to what extent this can be accomplished by increasing research time of scientific personnel, either within the context of increased beta-funding, or through different means (e.g., being able to hire more lecturers [docenten] in comparison to assistant/associate/full professors and/or through the extensification of the teaching programme).

Recommendation 6. *Diversity*. With 30% female full professors, there is still room for improvement with regard to gender diversity.

We support the aim of an inclusive university including gender diversity. The committee rightly concludes that the age balance in our institute is healthy, and with more than 30% female full professors, our institute scores better than Leiden University as a whole and Dutch universities in general. In this regard it is worth pointing out that recently we appointed two additional female, full professors in our institute in the context of the Westerdijk Talent Scheme, and a new female, full professor as Special Chair (i.c. within the Unit of Social and Organisational Psychology). We expect that the present number of female associate and full professors in combination with our present selection procedures taking gender bias into account will automatically promote more gender diversity the coming years, a process that we will actively monitor in the upcoming years.

Recommendation 7. *Publication strategy*. The average scientific impact of research output could be further increased by less focus on quantity of publications.

We felt encouraged by the recommendation of the committee to submit primarily top quality papers to the most appropriate high impact journals, a trend connected with more and more team-based reseach groups. However, as rightly pointed out by the committee, an inadvertent effect of this change is that our inter- or cross-disciplinary research published in medical or neuroscientific journals may have lower field-dependent citation rates than purely neuroscience publications in the same outlets. However, the committee does not feel this means that inter- or cross-disciplinary research is therefore less valuable and fully supports the developments of publishing in journals that are most appropriate. In line with this we will continue our publication strategy with more emphasis on quality rather than quantity.

In this context, we have already started a process to further reflect on our criteria for evaluating the individual scienticic output of our scientific personel. The present criteria strongly emphasize quantitave aspects (such as number of publications, number of citations, h-index, etc.). We are considering the introduction of a more portfolio-based approach that includes an evidence-based narrative that allows the researchers to tell their own story while tying it to relevant expertise, output and impacts (and not only to our present quantative criteria). Our aim is that developing and implementing such an approach will help to foster professional development to improve the scientific impact of our research output in a qualitative way.

We thank you for the opportunity to respond to the evaluation report. We appreciate the helpful recommendations and trust that our actions will further strengthen our scientific programme in the coming years.

On behalf of the Institute of Psychology,

Philip Spinhoven, scientific director