Linguistics
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September 12, 2023

To whom it may concern,

It is an absolute pleasure to recommend Koorosh Ariyaee for a Elahé Omidyar Mir-Djalali (EOM) dissertation completion fellowship. He is currently completing his PhD in the Department of Linguistics. I am co-supervising his dissertation with Dr. Jessamyn Schertz, which he is expected to defend in 2024. Koorosh is a stellar graduate student. He is inquisitive, dedicated, and routinely prepared; his intellectual growth, as well as improvements in his technical skills, have been exemplary. His graduate research demonstrates a clear commitment to both understanding big picture research questions in the domain of cognitive science, as well as studying Iranian linguistics, having conducted several studies on both Kurdish and Persian. His work as immense potential for understanding how the human mind stores linguistic representations. For these reasons, Koorosh is an exceptional candidate for an EOM dissertation completion fellowship.

His dissertation research has the potential to make significant inroads in understanding how humans convert the noisy, physically variable speech signal into known words in their language, a far from straightforward problem. He utilizes both empirical and theoretical insights from the sound patterns of Persian to investigate how listeners deal with systematic phonetic variation during spoken word recognition. He utilizes lenition, a linguistic process, whereby consonants become "softer". For example, the stop [ɢ] in [ɢɑz] 'goose' is pronounced as the fricative [ʁ] in [lɑʁæɾ] 'thin' when it is between two vowels. Such variation causes potential difficulty for listeners, as they will have to realize that the fricative [ʁ], in this example, must be perceived and understood, as the stop [ɢ]. As a field, we know extremely little about how listeners deal with this very important source of variation. Because this variation is not complete in Persian, that is sometimes these sound substitutions occur and other times not, this makes Persian an ideal test case for investigating these issues. This work bridges methods and insights in a wonderfully inter-disciplinary manner, linking insights from theoretical and experimental linguistics with methods and research questions in cognitive psychology. The questions his work tackles are integral to forming a complete picture for how we understand spoken language, a distinctly human trait.

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To date, Koorosh has fully completed his two experiments; in Experiment 1, he acquired goodness ratings for his experimental stimuli. In Experiment 2, he conducted a lexical decision task and used the previously collected goodness ratings in his statistical model to determine whether spoken word recognition times correlate with these goodness ratings. He is currently in midst of his statistical analysis and planning up a follow-up priming experiment with similar aims. In Experiments 1 and 2, a negative correlation would suggest that Persian listeners deal with this variation by storing in memory several acoustic phonetic variants. This would constitute an exceptionally important insight. This would tell us that much of the pre-memory processing stages during spoken work recognition do not deal with undoing (e.g., realizing that the [ʁ] should be heard as [ɢ], as above) variation in the signal, but instead that such variation is also stored. Such a result would help us, as a field, adjudicate between models that propose fully abstract representations and those that propose fully indexical representations, a long-standing and contentious debate in the field. This highlights the importance of Koorosh's research.

To speak to Koorosh's growth, I have been immensely impressed with how quickly he managed to mount Experiments 1 and 2, as well as his ability to analyze and synthesize the relatively complex data set. Prior to just a few years ago, he had little background in statistical analyses or working with quantitative data. His growth in this domain has been exceptional. While he still has some to learn regarding the more complex statistical models that he will need to employ for a full understanding of the data in Experiment 2, given his past proclivity for this kind of work, I am more than confident that he will have little difficulty. His enthusiasm alone for learning and challenging himself informs this expectation.

He also has a terrific academic track record to date. He has five publications and another three under review. He also has several presentations and impressively two invited talks. In addition to his research success, Koorosh is an absolute pleasure with whom to work. As noted above, he is dedicated and hardworking. He is also considerate, takes advice extremely well and incorporates feedback into his research remarkably. He takes initiative and will come to meetings not just having completed his assigned tasks, but also having made progress beyond what was expected. This is the most important trait a graduate student can have: drive and determination, and Koorosh has these traits in spades.

In short, Koorosh's research combines Iranian linguistics with theoretical and experimental linguistics to test questions that also have an impact on debates within cognitive psychology. He is a terrific graduate student and is true joy to supervise. For these reasons, Koorosh is an outstanding candidate to receive an EOM fellowship. I recommend him highly and without reservation. Please do not hesitate to contact me should any questions arise during your evaluation of his application.

Sincerely,

Philip J. Monahan