

國立中正大學

哲學系學術演講

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講題：Cell biological images as various kinds of representations

時間：2019.3.27 (Wed.)下午 3 時 10 分

地點：文學院 412 研討室

摘要：

This talk introduces the three stages of my study on the epistemic roles of visualisations in cell biological mechanism research. My study can be divided into two parts: mechanism diagrams and data images. The first stage is my PhD thesis, which completed a systematic survey on the historical trends of contemporary biological visuals and argues that mechanism diagrams serve both epistemic and communicative functions in biological research. My thesis has also proven that the shift of research focuses from morphology to explanation synchronised with the shift of visual focus from diagrams of objects to diagrams of mechanisms. The second stage is my forthcoming publication on the use of visual representations of time-event relationships in developing biological explanations. I argue that the perception of time is mostly coupled with the perception of cellular events in the reasoning about cell phenomena. Thus, time is not perceived as merely a referential axis in the background setting and is actually a crucial and representational element of appreciating the patterns of regulatory reactions within the cell. The last and latest stage of my study on biological visuals focuses on the dual roles of data images as both evidence and representations. I propose to classify between the evidential and the representational statuses of data images based on the actual practice of constructing mechanistic explanations, which uses data images for different purposes. By giving this talk, I seek to receive comments on my provisional study of integrating these three stages and providing a better understanding of the previously-neglected importance of visualisations in knowing cell biological causalities.

