

Faraday's error of omission: A tribute to Michael Turvey

JEFFREY B. WAGMAN¹

¹ Department of Psychology, Illinois State University, Normal, Illinois, USA

Correspondence to: Jeffrey B. Wagman
Department of Psychology, Illinois State University, Campus Box 4620, Normal, Illinois 61790-4620 USA
email: jeffreywagman@illinoisstate.edu
<https://doi.org/10.20338/bjmb.v17i6.403>

PUBLICATION DATA

Received 10 11 2023
Accepted 22 11 2023
Published 22 12 2023

Michael Faraday's admonition to scientists—"Work. Finish. Publish."—was on Michael Turvey's office door at the Center for Ecological Study of Perception and Action. Michael heeded this admonition, publishing hundreds of scientific papers and chapters over the course of his fifty-year career. But Michael always believed that his true life's work was as a mentor and educator. Moreover, Michael also believed that the time and energy spent celebrating successes ought to outweigh that spent on bemoaning failures. And so, Michael lived by a revised version of Faraday's admonition—"Work. Finish. Publish. Teach. Celebrate."

KEYWORDS: Michael Turvey | Ecological Psychology | Motor Control

FARADAY'S ADMONITION

It is well known (among some scientists and academics, anyway) that when 19th Century English physicist and chemist extraordinaire Michael Faraday was asked about the secret of his success as a scientist, he replied "The secret is comprised in three words — work, finish, publish" ¹. The shortened version of this quote "Work. Finish. Publish." was on Michael Turvey's office door at the Center for the Ecological Study of Perception and Action at the University of Connecticut for decades (certainly since 1998 when I arrived as a first-year graduate student).

Early in his academic career, Michael applied this admonition to systematic and groundbreaking investigations of memory and vision that —perhaps to the surprise of some—were firmly rooted in the information processing perspective that was gaining traction at the time. This work included a 1973 paper published in *Psychological Review* ² that is still (as of this writing in 2023) among his most cited papers.

But shortly thereafter, he turned his attention back to his first love — the performance of skilled behavior. This was a love that first sparked a decade before when he was an Olympic-caliber track and field athlete (read: How can athletes *perform* complex behaviors so efficiently and effectively?). It burned perhaps even brighter while he completed undergraduate and graduate degrees in physical education at Loughborough College and the Ohio State University, respectively (read: How can coaches *teach athletes* to perform complex behaviors so efficiently and effectively?). And it continued to burn while he stayed on to complete a Ph.D. in Experimental and Physiological Psychology at Ohio State (read: How can scientists *understand how* athletes perform complex behaviors so efficiently and effectively?). When he encountered James Gibson's work during this period, he immediately understood its significance to answering these questions.

In 1973—the same year the *Psychological Review* paper was published—Michael wrote his first paper on 'Action Theory.' In it, he proposed that "in principle, the fundamental problems to be solved and the concepts that will provide their solution are the same for both the Theory of Action and the Theory of Perception" ³. He spent the next 50 years applying Faraday's admonition to the theoretical and empirical investigations required to support this proposal. In doing so, he and his colleagues and students formalized and empirically validated Gibson's ecological approach to perception and complemented it with a self-organizing physics-based approach to goal-directed action that developed, in part, from Nicolai Bernstein's work on motor control.

The result was a thoroughgoing Ecological Approach to Perception and Action in which perceiving and acting are matters of laws and principles at nature's ecological scale ^{4,5,6}. These investigations resulted in the publication of several books and hundreds (and hundreds) of scientific papers and book chapters that have been cited nearly 50,000 times (as of this writing in 2023). Work. Finish. Publish. Indeed.

FARADAY'S ADMONITION, FIRST REVISION

Despite these achievements, Michael always believed that his true life's work over his five-decade career as an academic was as a mentor and educator, especially to graduate and undergraduate students. Notably, several of the awards and honors he earned over the course of his career have been for doing exactly this. His dedication to his students is as legendary as his productivity, perhaps even more so. Over his career, he mentored nearly 50 Ph.D. students and taught over 20,000 undergraduate students. He was tirelessly devoted to them all. He met with dozens of undergraduate students every week. In doing so, his patience was as unending as the line of undergraduates waiting to meet with him.

Of course, he was equally devoted to the graduate students. Among them, he was a father figure to some, a role model to many, and an inspiration to all. They wanted to please him not because they were intimidated by him but quite the opposite—*because they loved him*. And *he loved them back* — he made each of them feel as if their unique talents, their skills as a scientist, and their research was going to *change the field* for the better. And befitting his true life's work, he made each of them feel as if their skills as a teacher and a mentor was going to *change the world* for the better.

His former Ph.D. students are now accomplished researchers and teachers scattered across five continents. They include members of the prestigious Society for Experimental Psychologists, presidents of academic and professional societies, Program Directors for the National Science Foundation, Editors in Chief of academic journals, and even a former Principal Assistant Director of Science in the Obama Administration. Granted, Michael did not accomplish these things for them. And, more than likely, every single one of them would have gone on to accomplish great things even without his mentorship. But just as likely, they would not have accomplished *these particular great things* without his mentorship. And so, a first revision of Faraday's admonition might read “Work. Finish. Publish. Teach.”

FARADAY'S ADMONITION, SECOND REVISION

One of the reasons that Michael so valued teaching and mentoring was that the successes in scientific research are (often) few and far between — even for someone as accomplished as he was. Conversely, successes in teaching and mentoring could come much more regularly — even daily. And Michael thought that those successes—*like all successes in life*—deserve to be celebrated. He was convinced that this was true of all successes, no matter how small. He was also convinced that the time and energy spent on celebrating success should be equivalent to (if not exceed) that spent on bemoaning failures. He described this as ‘Cockney Law’ — when something goes your way, celebrate it for as much time and with as much energy as you would have been upset if it had not. Many instantiations of Cockney Law took place in Sweet William's Pub, the basement pub in the Turvey-Carello home. And, as scientists, we would all be well served to live by the second revision of Faraday's admonition— “Work. Finish. Publish. Teach. Celebrate.”

REFERENCES

1. Gladstone JH, Michael Faraday. 3rd ed. London: MacMillan; 1874. 179 p.
2. Turvey MT. On peripheral and central processes in vision: inferences from an information-processing analysis of masking with patterned stimuli. *Psychol Rev.* 1973;80(1):1-52. doi:10.1037/h0033872
3. Turvey MT. A note on the relation between action and perception. In: Wade MG, Martens R, editors. *Psychology of motor behavior and sports*. Urbana, Illinois: Human Kinetics; 1974. p. 307-313.
4. Profeta VL, Turvey MT. Bernstein's levels of movement construction: A contemporary perspective. *Hum Mov Sci.* 2018; 57: 111-133. doi: <https://doi.org/10.1016/j.humov.2017.11.013>
5. Profeta VL, Turvey MT, Carello, C. Goal-directed action and the architecture of movement organization. In Latash, M, editor. *Bernstein's construction of movements*. New York: Routledge; 2020. p. 308-319.
6. Turvey MT, Lectures on perception: an ecological perspective. New York: Routledge; 2019. 432 p.

Citation: Wagman JB. (2023). Faraday's error of omission: A tribute to Michael Turvey. *Brazilian Journal of Motor Behavior*, 17(6):324-325.

Editor-in-chief: Dr Fabio Augusto Barbieri - São Paulo State University (UNESP), Bauru, SP, Brazil.

Associate editors: Dr José Angelo Barela - São Paulo State University (UNESP), Rio Claro, SP, Brazil; Dr Natalia Madalena Rinaldi - Federal University of Espírito Santo (UFES), Vitória, ES, Brazil; Dr Renato de Moraes - University of São Paulo (USP), Ribeirão Preto, SP, Brazil.

Guest editor: Dr Vitor Leandro da Silva Profeta - University of Minas Gerais (UFMG), Belo Horizonte, MG, Brazil.

Copyright:© 2023 Wagman and BJMB. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives 4.0 International License which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Funding: Nothing to report.

Competing interests: The authors have declared that no competing interests exist.

DOI: <https://doi.org/10.20338/bjmb.v17i6.403>