

Commentary

Conscious competence model and medicine

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In residency training, medical practice, and in other facets of life, we are lifelong learners trying to achieve expertise in our craft. The four stages of competence, also referred to as the conscious competence model, is a common and useful framework to assess our proficiency as well as that of our peers and mentors. The ideation of this concept has been variously accredited to Martin Broadwell, Paul Curtiss and Phillip Warren, or Noel Bursch.¹⁻³ At its core, the conscious competence model is a tool to gauge ability and mental aptitude in accomplishing a task.

The hierarchy below illustrates the stepwise model for mastery (Fig. 1). In the beginning stage, it is assumed we approach tasks in a manner that is both unconscious and incompetent. This incompetence is straightforward, as anyone who begins a new craft does not yet have the required skill set to excel. The unconsciousness associated with beginning a new task can be traced to a psychological effect known as the Dunning-Kruger effect.⁴ The Dunning-Kruger effect occurs when someone of low ability is unable to properly judge their competence in a specific subject. This has been documented in detail within politics, robberies, elderly drivers, interview skills, and medical student clerkships.⁵⁻⁹ Needless to say, the unconscious and incompetent medical practitioner is a very dangerous one that needs careful monitoring. The next step of the hierarchy is when one becomes consciously incompetent. This tier is when one understands they lack ability in comparison to their peers performing the same tasks and in regards to the skills that they need to achieve mastery. In this tier, we find two distinct personality types. The driven person sets out a course of action to attain the skill set by procuring information from those with more expertise in order to improve. This person quickly elevates to the next tier. The second personality tends to stagnate in this category and does not properly utilize the tools around them to improve themselves. The third tier is the consciously skilled. This is where the majority of people fall in their respective fields of expertise. These people have the appropriate skill set to effectively accomplish tasks, but fully demonstrating that ability requires concentration and attentiveness. Finally, the fourth tier of mastery is achieved by a very small subset of people. These people have honed their abilities so much that it is now innate or second nature.

The four stages of competence model illustrates the learning curve associated with obtaining mastery in any skill. In particular, this framework is useful in analyzing medical training and the mind-sets and skill sets obtained along the way. In training environments it is necessary to understand the deficits present and place proper safeguards for patient safety while we are learning. In addition to placing proper safeguards, it is important to guide residents in their learning and for residents to find proper mentors. Every July 1st, the United States is flooded with new residents that now have Dr. in front of their name and newfound confidence in their abilities. However, many of them do not yet have the clinical knowledge to accompany this, especially with student rotations being shortened in the past year secondary to responses to the COVID-19 pandemic. These new residents may find themselves in the unconsciously incompetent stage at first and must be trained to move on from this stage quickly (Fig. 2). The majority of residents are in the conscious and incompetent stage and must appropriately learn from attendings and other

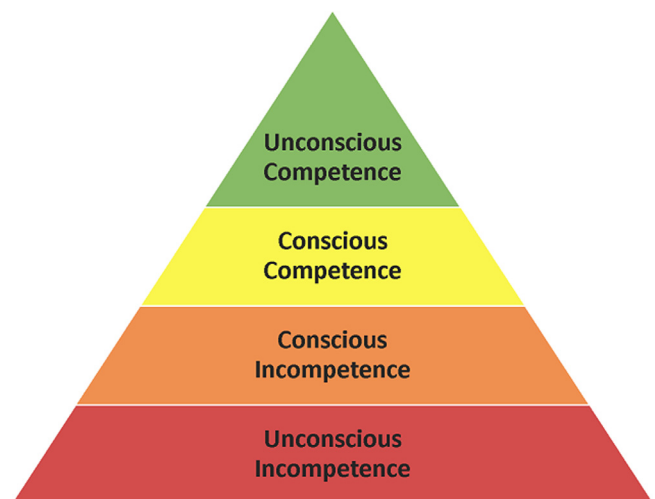


Fig. 1. Hierarchy of competence.¹⁰

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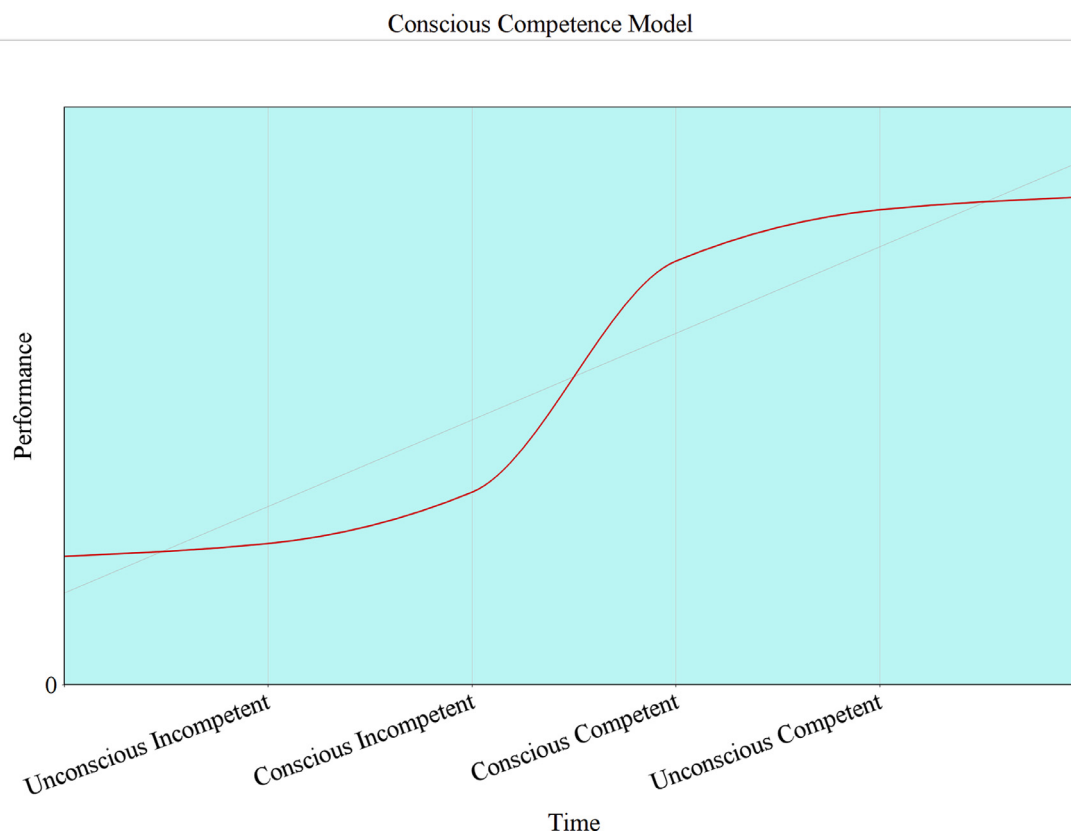


Fig. 2. Conscious competence model learning timeline.

experts in the field in order to move on to conscious competence. While unconscious competence is the highest attainable ability, it does not always make for the best teacher. The best teacher may be someone who is consciously competent as this person has the ability, but is still aware of their need to focus on their skill thus enlightening the learner on other mechanisms to improve their focus and maximize their abilities. It is vital whenever learning a new task to take a step back and evaluate oneself and others from a neutral perspective in order to assess areas for growth as well as areas of expertise. The stages of competence is a powerful framework that, when understood and applied, can help increase awareness and improve efficiency of the learner.

Declaration of Competing Interest

The author declared no potential conflicts of interest with respect to research, authorship, and/or publication of the article.

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