Expertise and experience

Does it matter if the orthodontist is experienced? Or is it better that he/she is an expert instead? Do these two types of skills make a difference in the planning and execution of treatment?

It would appear that a clinician becomes an expert by acquiring sophisticated knowledge. Elements of scientific thought provide the expert clinician with profound knowledge and understanding of the problem at hand. Although an expert possesses significant experience, experience alone is not enough to become an expert. Experienced non-experts approach with a 'one solution fits all' style, whereas experts solve problems in novel ways and their solutions surpass the performance of the experienced. The pitfall is in the difference between making use of one's existing information and developing new knowledge.

New knowledge is developed through practice. For example, professional (expert) musicians or tennis players, or the like, become professionals by practicing for endless hours and maintain that level by practicing even more. Clearly, talent would matter, but in the absence of practice, talent alone would not be enough to make a star. But it is not as simple as this; it takes an analytical mind and drive to reach the level of a professional. There have been many talented tennis players, as there have been a number of hard-practicing athletes, who could not become champions. In the absence of an analytical mind one's performance does not get better beyond a certain point.

For the clinician, it is necessary to see the relationships between disparate entities, understand the architecture of the problem and envisage a design to solve the problem. As Einstein had once remarked: 'imagination is more important than knowledge'. But how does one develop imagination; in other words, the habit to see the connections and relationships?

A mentor is crucial in the development of these habits. It is better to experiment or make mistakes, or both, and learn from them. But the kinds of mistakes that are best suited for learning are best identified by the mentor. Reading and knowing is good, but in the absence of discussions of learned material, they become less effective. Thus, it should be the mission of any mentor to teach with Hegelian principles of thesis – antithesis – synthesis. Slideshows in the classroom are entertaining, but not effective.

But where are such mentors? Since we cannot seem to attract them to academic careers, perhaps we should resign ourselves to the fact that the orthodontist of the future will be a technician rather than a clinician – actually, not even an orthodontist. Perish the thought!

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