INTRODUCTION

The importance of reflection in the continued learning and professional development of health care professionals is imparted to medical students soon after they begin their training. However, in both undergraduate and postgraduate medical training, reflection is most commonly "assessed" in extended pieces of formal writing—something that can inhibit natural approaches to reflective practice. The development of compulsory, standardized reflection aims to enable everyone to reflect on their practice, learn from it, and improve, but it does a disservice to those who already have mechanisms in place to reflect naturally and appropriately. It could be argued that standardized or formulaic recipes for reflective processes stunt the development of "creative, adaptive, and autonomous persons," actually resulting in the opposite of what reflection aims to achieve. Facilitating reflection in ways that suit learners and practitioners may help to overcome this. In opposition to formal, standardized approaches to reflection, it is argued that comics can mesh congruously with multiple approaches to reflection and, as such, can promote legitimate natural reflective processes, which may appeal to health care professionals.

ABSTRACT

The importance of reflection in the continued learning and professional development of health care professionals is imparted to medical students soon after they begin their training. However, in both undergraduate and postgraduate medical training, reflection is most commonly "assessed" in extended pieces of formal writing—something that can inhibit natural approaches to reflective practice. The development of compulsory, standardized reflection aims to enable everyone to reflect on their practice, learn from it, and improve, but it does a disservice to those who already have mechanisms in place to reflect naturally and appropriately. As soon as a formulaic version of reflection becomes the requirement, it becomes a chore and detracts from the genuineness of reflective practice. Genuine reflection is not something that can be "bottled"!

UNIQUE STYLES OF REFLECTION

Rogers' "core conditions" for human relationships suggests that "genuineness and transparency," a "warm acceptance and prizing of" the other person, and empathic understanding are crucial for effective relationships. If related to reflective practice, these factors can aid in the process, leading to self-directed and self-confident reflectors who are able to understand aspects of themselves, function more effectively, and cope with the problems of life. Without that genuineness and transparency, a warm acceptance of reflective practice (rather than merely acquiescence to set formats), and an empathic understanding in which tutors recognize individual learners' unique styles of reflection, it could be argued that standardized or formulaic recipes for reflective processes stunt the development of "creative, adaptive, and autonomous persons," actually resulting in the opposite of what reflection aims to achieve.

Irrespective of the area of deficiency, the need for remediation in students in medicine is rarely self-identified, and it is suggested there is a reduced ability for self-reflection. This may, in part, be caused by a lack of enthusiasm for the practice, perhaps because it is a requirement, or because the mode of imposing it involves extended written essays and an unnatural, artificially structured mode of the natural process of reflection, which is forced on health care professionals, particularly in the UK. Facilitating reflection in ways that suit learners and practitioners may help to overcome this.

In opposition to formal, standardized approaches to reflection, it is argued that comics can provide one such method, by meshing congruously with multiple approaches to reflection and, as such, promoting legitimate natural reflective processes, which may appeal to other health care professionals. I have found comics to be an excellent way of emphasizing and cementing learning, as shown in Figure 1, which demonstrates my theoretical argument.

COMICS CAN FOSTER CREATIVE THINKING

The definition of a comic is somewhat controversial because of its versatility. Common themes that run through most definitions of a comic include sequential panels of images and text, which are not necessarily art in the traditional sense but which tell a story that may be topical or moral. The versatility of the medium, and the increase in breadth of its audience to encompass serious-minded adults as well as young people, has resulted in the transition of comics since the 1930s from cheap entertainment for children to a legitimate form of literature.

Keywords: comics, development, medical education, reflection, reflective practice
Comics as Reflection: In Opposition to Formulaic Recipes for Reflective Processes

Importantly, reflection should not be, and does not have to be, simply a tick-box exercise, and comics could provide a way for reflection to be fun and enjoyable. They also give practitioners the freedom to explore different ways of thinking, or acting, through an informal, creative medium. Reflection is an area in which creative thinking can be used to invoke ways of thinking about alternatives in practice, and subsequently test and evaluate them.

Comics can foster creative thinking by consideration of the “gutters,” the empty spaces between panels, which require the reader to make connections and construct meaning between separate panels to form a coherent narrative. These are spaces for liminality—disorientation and ambiguity—for both the reader and the creator, in-between the solid structure of the paneled storyboard. The conclusions drawn from these spaces are individual to the reader and are as personal to them as their own reflections. In this sense, the gutters are not only invisible messengers, delivering information via empty space, but also facilitators for reflectors to take on-board the information they have been given, process it, make reasoned

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Figure 1. Reflective “on-action” comic produced by the author to emphasize key learning points after a 5-week geriatrics rotation. 

BP = blood pressure; med = medical.
assumptions, and gain closure from the story in the comic. McCloud\textsuperscript{1} described closure as “observing the parts, but perceiving the whole,” capturing the way in which comics can be a tool for reflectors to access deep learning.

This reflective tool for learning is shown in Figure 1, comic number 2. A panel in which an elderly patient is surprised by an offer to make her a cup of tea is followed shortly by a panel showing a resolution to this situation. However, between the panels is open space. This gutter offers the reader, and the creator, the opportunity to question the context of the scenario. Why is the patient shocked that a physician would offer to make a cup of tea? Would she be so shocked if a nurse or health care assistant offered the same thing? If not, how has that disparity happened, and how has the creator contributed to it? Are they implicit? How can other health care professionals change their practice in the future to ensure a patient is not so shocked when a medical trainee offers basic care? The richness of the gutter variety is demonstrated by exploring other potential interpretations of the very same gutter. Although the creator of the comic may believe that by making and sharing tea with the patient, he is breaking down boundaries between physician and patient, and allowing for a building of rapport, another reader may be inclined to wonder whether Doris, the patient, had given the physician permission to use her first name. Has the physician inquired how Doris would prefer to be called? Is this an appropriate way to start a conversation with a patient? These questions evoke an entirely different direction of thought and reflection, which may be more applicable to the reader than to the creator, but which is no less valid and which strengthens the reflective power of the single comic. Another example of the power of gutters is illustrated in comic 3 in Figure 1. There the blank space separates 2 contrasting situations and demonstrates the difference in outcomes between separate approaches.

THROUGH THE LENS OF A COMIC

Comics can also be used to catalyze retrospective “on-action” reflections,\textsuperscript{2} helping to link what happens in practice to the theory that underpins it. This is useful for genuine evaluation and analysis during reflection, allowing practitioners to bring tacit knowledge, concealed from conscious thought, to the forefront of the mind and then use it to underpin and improve future practice. Tacit knowledge is gained through phenomenologic experiences, via our interaction with others and our environment,\textsuperscript{3} but lies under the surface and may be inaccessible to practitioners if they are trapped by the routine of pro forma reflection. Comics can call attention to the everyday by making it stranger and casting it in a new light, a process that is shared among all forms of literature and is coined “estrangement” by Shklovsky.\textsuperscript{4} Kumagai and Wear\textsuperscript{5} argue that after estrangement in literature, the readers or audience members are led to a feeling of disquiet and discomfort, the unfamiliarity of which prompts them to reflect on and reevaluate their beliefs, perspectives, and assumed knowledge. Besides causing this discomfort, the new perspective on experiences achieved by looking through the lens of a comic can make difficult or stressful experiences appear less threatening, thus making it easier for practitioners to relive and revisit experiences, exposing tacit knowledge, and identifying areas for personal and professional growth. Along a similar vein, Kumagai et al\textsuperscript{6} discuss the concept of empathic memory—memories of interactions and moments of importance that lie under the surface but which are accessible with conscious thought and may influence future practice. Williams\textsuperscript{7} describes how comics can create a portal into the individual experiences of the author, forming an empathic bond between reader and author. It stands to reason that this portal can also be used to mentally re-enter a previous experience and access the required empathic understanding to reflect effectively.

McCloud\textsuperscript{4} suggests that comics are intended to convey information and produce aesthetic responses in viewers, but it could be argued that creating comics, as well as viewing them, can convey such information and invoke emotional responses. Kochalka,\textsuperscript{8} however, argues that comics are not about conveying information but about understanding it, which supports Schön’s\textsuperscript{2} theory of uncovering knowledge around us and using it to influence our future actions. Truly insightful self-evaluations can be difficult for practitioners to perform. However, Williams\textsuperscript{9} argues that comics can assist in the discussion of “difficult, complex or ambiguous” subject matter, by synergistically combining words and images to tell stories that would be difficult to present via other media. Comics can enable practitioners to access difficult memories, by making the unsayable accessible through the use of humor or metaphors. Therefore, they can prove to be an effective vehicle for revisiting sensitive memories and reflecting on them.

KEEPING COMICS SIMPLE

Comics also possess the ability to foster empathic abilities in health care practitioners, often by reminding them of the patient’s perspective. Comic creators use icons, or symbols, to represent people, places, and ideas to exploit emotional connections and foster empathic abilities. Icons are very simple, which allows many different people to connect with them. For example, a smiley face is relatable to people of all ages, ethnicities, and genders, whereas a photograph of a smiling face may be more emotionally distant to someone who does not immediately identify with the subject of the photograph. Furthermore, by keeping subjects in comics simple, it allows for meaning to be conveyed without the absolute requirement for high–standard or near-perfect artwork. If reflective messages can be communicated just as well through a stick person as through the artwork of professional illustrators, pressure is relieved from the creators, and they can concentrate on the learning points rather than their drawing skills or potential lack thereof. Although it is clear that the comics in Figure 1 are not to a professional standard, they are able to convey a message, both to the creator on rereading them and if read by others. The use of icons and symbols makes it clear to the audience what the comic is about. A walking stick is used to illustrate an elderly person, a stethoscope clearly represents a medical student or physician, and the lack of a stethoscope
in the last panel represents a return to a more humanistic side of medical professionals. Even if artistic abilities are preventing clear graphic representation of the message at hand, the versatility of comics allows for conternuminous text. In my comics, arrows are often used to annotate subjects or actions, and in my experience, this has not detracted from the quality of these reflections, irrespective of the standard of the artwork. One potential pitfall of this solution, however, is how the use of stereotypical symbols or icons runs the risk of typecasting and causing offense. This results in the need for creators to be sensitive and self-aware with their comics.

Another important distinction to draw is between comics that are intended purely for personal reflection, for which the standard of the artwork is of even less importance, and those comics intended for shared reflection or publication. In the latter type, it is of course, vital that the standard of the artwork is higher, to at least a level where meaning can be conveyed effectively to others as well as the creator. For those who lack high-quality artistic skills but who still wish to share their reflective comics or are required to as part of assessed reflection, there is also the option of adding accompanying written text alongside the comics. This can help not only to illustrate what the comic is showing but also to interpret the reflective work occurring in the comic, which may not be immediately apparent to the reader. This may somewhat stifle the variety of interpretation, as discussed earlier, but could be a mechanism for reflective comics to be incorporated into assessed reflective requirements, especially for those who are concerned about their lack of artistry.

**Reflection**

**Reflection via individual preference**

In comics I have found a way to perform effective, genuine, and powerful reflection. When using John Dewey’s cycle of reflection as a framework, comics can be used for intellectualization and identification of everyday problems (eg, in Figure 1: *What led the patient to being shocked at a physician offering her a cup of tea, and how might the author have contributed to this problem?*), for design and selection of hypotheses (*How could the author have better approached and calmed a scared, confused, and stick-wielding patient on the ward?*), and for mental elaboration of those hypotheses. Revisiting experiences in a simpler, less frightening format than real life can help provide a framework to which Tracy and Robins’ mechanism of self-appraisal can be applied to distinguish between basic emotions (ie, happiness, fear, anxiety) and cognitively complex self-conscious emotions (ie, shame, guilt, pride). For example: *What led the author to feeling pride after helping a patient check the health of her cat? If the author feels guilty when talking to a confused patient, what is it that he has not done to free himself of those emotions, and how can be ensure he does those things in the future?* Comics can even be used as a form of simulation via the cycle of Kolb and Fry, or of Gibbs, in which they can take the place of actual experience or an action plan. Of course, in their creation alone, reflective comics are a prime example of Schön’s “on-action” reflection.

**Conclusion**

I hesitate to advise all practitioners to reflect via the medium of comics for fear of further inciting that which I am critiquing: Specific, formalized ways to reflect. Instead, I conclude by suggesting that students and practitioners might be enabled and encouraged by tutors and seniors to reflect via methods that suit their own preferences, whether continuous, prose, comic, or another novel approach. Submission and assessment of these reflections should embrace such variations accordingly.

**Disclosure Statement**

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**References**