Giving psychology away: How George Miller's vision is being realised by psychological literacy

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In George Miller's famous address to the American Psychological Association in 1969 he explored the aims and future direction of psychology. Psychology could develop as a professional elite that develops specialised knowledge that experts can hold on to or it could aim to 'give psychology away' and to allow the general public access to psychological knowledge that will be of benefit to them. In so doing it will create 'a new and different public conception of what is humanly possible and humanly desirable'. This vision is being realised 50 years on by the wide dissemination of psychology knowledge through, for example, university school courses in the subject, and the growth of psychological literacy in the general public. This paper discusses issues raised by this and the implications for the profession of psychology and the perception of psychology in the general public are discussed.

Keywords: *psychological literacy; George Miller; public perceptions; A-level psychology; democratisation.*

Giving psychology away

IN 1969 GEORGE MILLER addressed the American Psychological Association (APA) as President and laid out a challenge that still resonates today. He started by saying,

> The most urgent problems of our world today are the problems we have made for ourselves (1969, p.1063).

At the time when he gave the address the US government was at the height of its military action in Vietnam against the peasant army of Vietnamese people. This military incursion into a foreign country resulted in substantial loss of life (55,000 from the US and 1.5 million from Vietnam; Pilger, 1989) with no obvious military, social or economic benefit. Then as now there was concern about the involvement of psychology with the military (APA, 2015; Banyard & Flanagan, 2011).

If these sorts of modern-day problems have been made by people then if we want to solve them we need to know a bit more about people. This is where psychology comes in. And, Miller continues, if psychology can help with our problems then it should try to do so. He suggests that our obligations as citizens (rather than as scientists) mean that if we have something of practical value to contribute, we should make every effort to ensure that it is implemented.

Miller recognised the revolutionary potential of psychology and went on to say,

> …if we were ever to achieve substantial progress toward our stated aim – toward the understanding, prediction and control of mental and behavioural phenomena – the implications for every aspect of society would make brave men tremble (1969, p.1065).

Miller suggested that despite this potential nothing very revolutionary had emerged from psychology so far. Psychometric tests and factor analysis, for example, he pointed out as being admirable but not comparable to the impact of gunpowder, the steam engine or genetic surgery. And in the 45 years since this address it is difficult to identify any great additions to the list. A recent discussion in *The Psychologist* (Banyard, 2015) challenged psychologists to come up with an achievement that matched the non-stick frying pan in its impact and usefulness. The responses were not encouraging.

This absence of major findings appears to create a narrative of despair about the impact of psychology but Miller offered a more positive message;

> I believe that the real impact of psychology will be felt, not through the technological products it places in the hands of powerful men, but through its effects on the public at large, through a new and different public conception of what is humanly possible and humanly desirable (1969, p.1066).

Psychological literacy

We argue here that this public conception is being realised today through psychological literacy. The term psychological literacy was first introduced by Boneau (1990), who defined it rather broadly in terms of the skills and knowledge acquired through the study of psychology. More recently, though, it has been developed to move away from the rather prescriptive list provided by Boneau, and instead to emphasise the ways in which psychological skills and knowledge can be applied to solve real-world problems and to enhance everyday life. McGovern et al. (2010, p.11) define psychological literacy as having the ability to apply *'psychological principles to personal, social, and organisational issues in work, relationships and the broader community'*. It incorporates a reflective approach, involving personal insight, self-awareness and understanding of others, based on psychological knowledge. The related concept, psychologically literate citizenship (Cranney & Dunn, 2011), refers to the application of psychological literacy to social, community and global issues, and is closely linked to the concept of global citizenship (Bourke et al., 2012). According to McGovern et al. (2010, p.10), psychologically literate citizens are *'critical scientific thinkers and ethical and socially responsible participants in their communities'*. In a practical example of this, Harré (2011), in her book *Psychology For A Better World* demonstrates the ways in which psychology can be applied to improve global environmental sustainability. Indeed, Halpern suggests that psychological literacy is relevant to many of the issues faced in modern human life:

> Today's students must prepare themselves for a world in which knowledge is accumulating at a rapidly accelerating rate and in which old problems such as poverty, racism and pollution join new problems such as global terrorism, a health crisis created by alarming increases in obesity, and the growing gap between the poor and the very rich. All of these problems require psychological skills, knowledge and values for their solution (Halpern, 2010, p.162).

The assumptions within the construct of psychological literacy are that psychology students acquire skills, knowledge, values, insight and social responsibility through their psychology education, and that these acquisitions can then be applied to real-world problem solving in everyday life (Hulme, 2014). This may be an over-simplified perspective, and clearly caution is needed in ensuring that students are aware of their own limitations as non-qualified psychologists (see also Hulme et al., 2015, this issue). However, the basic tenets of psychological literacy resonate strongly with Miller's concept of *'giving psychology away'*; within the framework of psychological literacy, psychology will no longer be the sole preserve of professionally qualified psychologists, but instead, psychological knowledge will be freely available within the community, via individuals who have experienced some sort of psychology education, but are not experts in psychology, where it can be applied to resolve social and global issues.

Public perceptions of psychology

Psychological literacy affects the perception that people hold about psychology and psychologists. Psychology has shown a concern about how the public perceives it and this concern has been apparent since the subject first broke away from philosophy (Wood, Jones & Benjamin, 1986). More recently the APA has been proactive in finding out what

are the public perceptions of the subject. They commissioned a report (Penn, Schoen & Berland Associates, 2008) based on a survey of 1000 adults. On the plus side the report found that the general public in the US have a positive view of psychology and believe that studying human behaviour can solve real-world issues, consistent with the concept of psychological literacy. On the down side they did not have a good understanding of the breadth and depth of psychology and did not see it as a hard science. One of the authors summarised it by saying *'Psychology in general is viewed as a career that treats "the individual", similar to psychiatry and social work, but not medicine'* (Mills, 2009, p.28). They found that the public are very sceptical of psychology's scientific credentials with only 30 per cent agreeing with the statement *'psychology attempts to understand the way people behave through scientific research'*.

The sense that psychology is not part of scientific activity is reinforced by the categorisation of books on the psychology shelves. These shelves heave with self-help books but the advice presented in only five per cent of the 3500 self-help books published each year is verified scientifically (Arkovitz & Lilienfeld, 2006). And there is only one psychology magazine which is aimed at the general public and based on rigorous research: *Scientific American Mind: Behaviour, Brain, Science, Insights* (Lilienfeld, 2012).

When asked about psychological concepts the general public will sometimes report opinions that vary substantially from accepted understandings in psychology. For example, a telephone survey in the US exploring beliefs in about memory found that 63 per cent of respondents agreed with the statement that memory works like a video camera, 48 per cent agreed that memory is permanent and 37 per cent agreed that the testimony of a single confident eyewitness should be enough to convict a criminal defendant (Simons & Chabris, 2011).

In the UK, a study with teachers interested in the neuroscience of learning (Dekker et al., 2012) found that 29 per cent agreed that *'If pupils do not drink sufficient amounts of water (i.e. six to eight glasses a day) their brains shrink'*, 93 per cent agreed that *'Individuals learn better when they receive information in their preferred learning style (e.g. auditory, visual, kinesthetic)'* and 48 per cent agreed that *'We only use 10 per cent of our brain'*. There is no evidence for any of these statements yet these myths have taken hold even among people with an interest in the topic. In fact, part of the problem may be that some of the myths are competing with genuine scientific psychological evidence, such as that cognition is improved by hydration (Edmonds & Jeffes, 2009) and that eating breakfast can enhance some children's cognitive performance (Hoyland, Dye & Lawton, 2009). How can a teacher, with limited knowledge of psychology, distinguish between the two types of information? Improved psychological literacy in the educational community can only assist.

In the US, the general public views psychology as less valuable to society than a number of other disciplines, including physics, business, medicine, and engineering (Janda et al., 1998). Clearly the general public holds very different ideas about psychology, its scientific credibility and its findings to the ideas held by psychologists themselves.

The public misunderstanding of the nature of psychology is widespread and persistent; indeed, research has consistently reported that even A-level psychology teachers are suspicious about psychology's scientific status (Maras & Bradshaw, 2007; Rowley & Delgarno, 2010). Given the value of psychology as a discipline for helping to enhance human life, in a scientific and evidence-based (rather than self-help) way, changing public perceptions of psychology would be a worthwhile endeavour.

Psychology has at least two useful assets in its campaign to be understood better by non-specialists, and both are aspects of psychological literacy. Firstly, the business of changing minds and attitudes lies very much

at the core of psychology. Social psychologists have been concerned with persuasion and marketing, and health psychologists with attitude and behaviour change for many years. There is surely potential for psychologically literate psychologists to apply some of these theories to solving the problem of psychology's bad press.

Secondly, one of the key skills included in McGovern et al.'s (2010) outline of psychological literacy is *'communicating effectively in different modes and with many different audiences'*. Psychology is a popular subject, and as a discipline, we have at our disposal an army of individuals who have studied psychology, appreciate its scientific foundations, and are able to communicate effectively with different audiences. It may be time for a *'peaceful revolution'* (Miller, 1969), in which we mobilise our troops and start to deploy those effective communication skills to reshape the public perceptions of our discipline. The implication, then and now, is that we need to reflect on how we communicate and change the ways that we teach.

A-level psychology

One driver for the growth of psychological literacy is the popularity of educational courses in psychology in schools and colleges. It is estimated that for the last 15 years over 13 per cent of each cohort of 18-year-olds have taken a qualification in the psychology (BPS, 2013) and if you add in the number taking psychology as part of their courses in health and social care, for example, then a picture develops of a population with a growing awareness of the basic ideas of psychology.

Many A-level Psychology students go on to apply to read the subject at university but the majority do not. Of the over 100,000 students who take an AS-level examination in the subject, about 56 per cent progress to complete the A-level (JCQ, 2014). At undergraduate level approximately 23,000 students start a degree each year in psychology of whom 59 per cent have an A-level in the subject (HESA, 2013) which indicates that the progression from A-level to HE in psychology is only around 25 per cent. In other words, of the 100,000 who start an advanced school course in psychology less than 15 per cent continue with the subject at university.

These data tell us that AS- or A-level is the only formal psychology many students will study and so these courses are in a position to have a profound effect on the nation's understanding of psychological concepts. With over 100,000 people taking these courses every year for over a generation the nation is becoming psychologically literate through this route. The question to consider is what this psychological literacy means in practical terms. What are the representations of psychology that are held by these students and how do they differ from those held by psychologists?

Surveys of A-level students show the subject is held in high regard by them but their view of the content is distorted by a dated curriculum that is largely populated with historical, male Americans (Banyard & Duffy, 2014; McGuinness, 2003) and focused on social and developmental topics. Also, the subject is not so highly valued outside of the student body with many negative comments from government figures and elite universities concerning scientific rigour (Jarvis, 2011; Russell Group, 2011). This suggests a mismatch between the perceptions of their subject held by academic psychologists and those held by the informed (psychologically literate?) general public who have studied the subject for at least a year. This also has implications with regard to correcting the misconceptions of psychology held by the general public, as discussed above, and suggests that the psychology community may be missing an opportunity to educate the populace in terms of psychological literacy.

Democratisation

There is a general change in our relationship with knowledge being brought about by digital technologies (Candy, 2000). The access to information afforded by these tech-

nologies allows us, for example, to self-diagnose perceived medical and psychological conditions, and the access to other people through social media allows for the sharing of experience and practice. The internet plays a role for young people in mediating information on sensitive issues (Borzekowski & Rickert, 2001) and this confirms research showing the disinhibiting effect of the internet and the increased willingness to seek out information on embarrassing issues online when compared with the telephone or face-to-face communication (Joinson & Banyard, 2002, 2003).

This democratisation of knowledge poses a challenge to the centralised model of learning and to the power of the professions such as psychology. The communication theorist Harold Innis writes,

> …new technologies alter the structure of our interests: the things we think about. They alter the character of our symbols and the things we think with. And they alter the nature of community: the arena in which thoughts develop (1954, p.20).

Innis's comment is derived from his work on ancient civilisations and at the time that he was writing, in the middle of the twentieth century, he argued that contemporary advances in communication had the effect of enlarging the range of reception while at the same time reducing the points of distribution (Carey, 1989); in other words – broadcasting. Innis argued that an oral tradition of knowledge transfer within a society (in contrast to a written tradition) challenges the development of monopolies and enhances the democratic processes within that society. In contrast, the digital technologies of the 21st century create an opportunity for learners to take more control of their learning and to engage in sharing of personal understandings that is a new manifestation of the oral tradition.

Social media provide an opportunity for greater democratisation of our everyday lives. Although the roles of Facebook and Twitter in the Arab Spring of 2010 have been overstated, it is clear that social media have an impact on political events (Beaumont, 2011; Brym et al., 2014). These social media take broadcasting out of the hands of powerful organisations and allow individuals to take part and follow their own agenda. In the area of education these facilities democratise learning by giving greater access to knowledge and ideas and greater opportunities to form communities of expertise and to disseminate information (Underwood et al., 2010).

This process of democratisation has the potential to take knowledge out of the hands of an elite body of academics and professions. Just as the invention of the printing press challenged the power of the church in the Middle Ages by making knowledge accessible to ordinary people, this new revolution in communication is a challenge to academic orthodoxy. Psychological knowledge is very much a part of this; consistent with Miller's vision of a psychology that belongs to the people, accessible psychological knowledge can facilitate this challenge to established academia.

Once more, psychological literacy is a key aspect of this. McGovern's definition of psychological literacy includes:

> scientific thinking, disciplined analysis of information to evaluate alternative courses of action and competent in using and evaluating information and technology (McGovern, 2010, p.11).

These components of psychological literacy closely resemble the educational construct of information literacy (Eisenberg, Lowe & Spitzer, 2004). Our psychologically literate citizens are able to find, sort through, evaluate and select appropriate knowledge in order to make sense of competing information, and draw evidence-based conclusions. For the school teacher, or parent, who is unsure of whether giving a child breakfast or a drink of water is beneficial for their learning in school (see above), being psychologically literate means being able to make the most of freely available information, thanks to the recent democratisation of knowledge, to find and make sense of the evidence for themselves.

Digital natives

Digital technologies have also changed the power relationships within education. Prensky (2001) points to the new expectations, skills and experiences of digital natives (those brought up with digital technologies). He argues that,

> The single biggest problem facing education today is that our Digital Immigrant instructors, who speak an outdated language…, are struggling to teach a population that speaks an entirely new language (Prensky, 2001, p.2).

The process of labelling a generation as being fundamentally different is not new, for example, babyboomers and Generation X (Bennett & Maton, 2010). It is, however, too simplistic to suggest a typology that divides us into digital natives or digital immigrants (Salajan et al., 2010) and the creation of additional types for example digital settlers (Palfrey & Gasser, 2010) and digital tourists (Toledo, 2007) has not added to the discussion. Moving beyond the issues with rigid typologies, however, Prensky's metaphor directs us to the technologically rich worlds of the people and to consider how this impacts their learning and everyday life.

The behaviour of people is always changing and driving the bottom-up development of new technologies. For example, texting was a bi-product of mobile telephone technology but young people discovered it as a means of communicating cheaply and from the first message being sent in 1992 it developed to the point where 7.4 trillion texts were sent in 2011 (Gayomali, 2012). Currently there appears to be a move away from Facebook especially by the young (Garside, 2013; YouGov, 2014) as new means of communicating become more popular. People find new uses for technologies and make them their own but then move on to novel communication strategies as they become available. Again, McGovern's conceptualisation of psychological literacy as encompassing the skills to be 'competent in using and evaluating information and technology' (McGovern, 2010, p.11) is relevant here. As times and communication strategies evolve, our psychologically literate citizens will move with them, and be able to remain in touch through their ability to learn to use new technology.

Reflexive literacy

The bottom-up pressures on knowledge are not new or unique to technology. Literacy is commonly conceptualised as a top-down process whereby people learn the rules of grammar and the vocabulary of a particular language. This is only partly true and languages are always evolving. One obvious example is the continual refreshing of the vocabulary. The *Oxford English Dictionary* provides regular updates to its list of words. Most recently it has added words such as *carne asada*, *crony capitalism*, *digital footprint*, *duck face*, *man crush*, *Obamacare*, *retweet*, *shabby chic*, *simples*, *sticker licker*, *teachable moment*, *the ant's pants*, *tiki-taka*, *tomoz*, *twerk*, *vaping*, *vishing*, and a personal favourite, *lolcat*. Although many will see these changes as regrettable they illustrate how language changes as a bottom-up process as people develop new understandings about words and how they are expressed.

This evolution of language through bottom-up pressures, resulting from common usage, has been happening for centuries (as those of us who studied Chaucer or Shakespeare at school will have realised quite quickly). In some ways, it seems that psychology is undergoing a similar evolutionary shift. If literacy is a reflexive process, does the same principle also apply to psychological literacy? Will we allow public conceptions to influence the agenda of psychology or will we try and hold on to the specialised knowledge that we have developed?

Giving it away

Miller's vision for psychology was that it would change our view of ourselves, and he used the example of Freudian theory. He suggested that the practical application (therapy) has only had a limited impact, but the theory itself has changed the way we

think about ourselves in the Western world. This is the type of change that happened when it was discovered, in other branches of science, that our planet is not the centre of the universe, and when it became accepted that our ancestors were hairy and lived in trees. Such theories and discoveries change the way people see themselves. Psychology has the same potential to change our view of who we are and what we can be. In the language of psychological literacy (McGovern et al., 2010, p.11), psychology helps us to become 'insightful and reflective about one's own and others' behaviour and mental processes'.

Miller noted the growing need for psychological services and wrote in 1969 that there were not enough psychologists to meet that need. He went on to say,

> the people at large will have to be their own psychologists and make their own applications of the principles we establish (p.1071).

This has implications for how we deal with scientific knowledge. If we follow one path then psychologists will discover things about people, hold onto that knowledge and become experts and they will then be able to use that expert status to sell their services and control the use of the knowledge.

Miller proposed a different path when he wrote,

> …our responsibility is less to assume the role of experts and try to apply psychology ourselves than to give it away to the people who really need it (p.1071).

If we follow this path then we make psychological knowledge freely available (open source?) so that the general public can have a better view of who they are and what choices they have. In this way the control issue is about using psychology to allow the ordinary individuals to have more control over their own behaviour and hence their own lives. Miller finished his paper by saying:

> I can imagine nothing that we could do that would be more relevant to human welfare, and nothing that could pose a greater challenge to the next generation of psychologists than to discover how best to give psychology away (p.1074).

We argue that the growing psychological literacy brought about by its position as an important part of general education is beginning to fulfil Miller's vision of giving it away.

Conclusions

The general population is becoming increasingly psychologically literate but the understandings it has of psychology do not match those of the profession. Furthermore, there are many widely held misconceptions about psychology and also about human behaviour. One way to respond to these misconceptions is to convince the general public about the value of psychology and psychologists. Lilienfeld (2012) points to

> our ability to apply scientific reasoning and rigorous methodology to assessing, evaluating, and alleviating human problems, whether they be mental health difficulties, such as depression or anxiety disorders, or broader societal difficulties, such as prejudice or blind obedience (also see Hayes, 1996) (p.14).

If psychology chooses to follow Miller's vision and seek to give psychology away then we can enhance public understandings of the subject and challenge the misconceptions that take hold. Psychology may not have developed transformational theories or products but it still has the potential to be revolutionary and change our perceptions of who we are and who we can be. One way to further this is through promoting and supporting psychological literacy. Our impact then will not be measured by academic output and conference presentations but by our effect on public perceptions of what is humanly possible.

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