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概要

ある創造的な作家たちは小説のヒントは身体を通してくるという。また別の作家たちは「動 き」たとえば歩いたり、走ったり、または新しい環境に体を置いたりといったことが創造性を 促すという。ニューサイエンスにおけるいくつかの論文、たとえばマクロな領域でのキメラ現 象(ある有機体に生きる細胞が別の有機体に生ずること)や後生分化研究(DNAの連鎖におけ る変化よって遺伝的形質は伝えられないとする説)ではこの考えは支持されているように思え る。この論文では本質においては主に推論的思考によっているが、作家によっては知られざる、 しかし作家によって創られる物語の真正さの可能性を探求する。それは物語の源泉が細胞を通 して伝えられるのか、細胞への変化を通して伝えられるのかといったことを考察する。

I. Introduction:

Memory and experience are often seen as key elements of creativity (O'Connor, 1969). In attempts to define the process, observers and practitioners also feel that metacognition and being prepared are important components (Harnad, 2007; McMahon, 2012). These features can rally with and against views of creativity as being filtered through and stemming from "sensory and affective knowledges", movement and corporeal actuality (Gibbs, 2005, ¶ 20; Krauth, 2008, 2010; MacFarlane, 2005). The hypothetical aspects of creativity touched on above are in no way exhaustive or exclusive of one another, nor are they the only elements, views and areas researched. However, this essay will particularly focus on the notion of the body, including memory, as a nesting place for creativity and "dimly-remembered melodies" (¶ 20). Its main focus is in the area of creative writing.

Cognitive scientist, Stevan Harnad (2007) argues creativity has been defined as emanating from method, memory ("innate structure"), magic and/or mutation (more abstract); the "4 Ms" (p. 7). Though mostly dealing with creativity pertaining to new mathematical concepts, the question of what causes or drives creativity can be transferred to other fields. His idea of memory is one that helps facilitate or develop creativity. Ultimately he prefers the idea of preparedness over

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memory, feeling the idea of memory governing creativity is too abstract and connected to the exclusionary idea of "magic" – where creativity is viewed as an inspirational, innate act which only a few develop and have (p. 8). However, what if aspects of memory are generational? As stated above, my particular area of interest is creative writing, and writers write outside of their own experience all the time, and authentically so, but where do these actual stories stem from? What if some of the stories writers create are pulled from an inter-generational cellular knowledge bank, and are therefore based in something relatively tangible connected with memory, rather than the arena of "magic"? Gibbs (2005) and others suggest that parts of the creative process reside in the body, even if the location is conjectural (\P 20). If aspects of creativity – the information that feeds some of the stories that find their way into actualisation – could be located in the body, such as in cells passed from one organism to the next, or from neurological and cellular adaptation, could the authentic voice outside of a creator's experience be credited to this? Stories might come to us through our bodies, and through some form of inherited memory. Considering the notions above, this paper is concerned with some of the philosophical aspects of microchimerism (when cells from another individual reside in the first), epigenetics (cellular change outside of DNA, and also due to external circumstances), and neurological and cellular change pertaining to multi-generational memory or behaviour, within the field of creative writing. Its main aim is to explore the possibility that stories/ideas that make up fiction and the subsequent authenticity could be rooted in inherited/changeable memory (or behaviour). Naturally, perceptions of authenticity will also vary, but will not be overtly explored in this essay. Not being an expert in any of the scientific fields above, the paper remains speculative in nature.

II.

The insight gained from the finished product – for both the writer and the reader – is not always germane to the writer's actual day-to-day awareness, even if it has sprung from his or her being. Flannery O'Connor (1969) wrote in a piece entitled "The Nature and Aim of Fiction": "[a]nybody who has survived his childhood has enough information about life to last him the rest of his days" (p.10). Richard Flanagan used this quote to partially answer a question relating to the ability of authors to write across time, ages and genders (2001, personal communication, Bookcaffe, Swanbourne, Meet the author event on the release of *Gould's Book of Fish*). Perhaps childhood does contain enough experience for writers to develop an authentic voice, and to connect to a range of issues outside of their actual lived experience, (O'Connor's idea was that a little bit of experience enables one to write about a lot of experiences, p. 10), but it is not strictly

probable, at least in terms of chronological, linear experience, depending upon one's religious/ spiritual views. Even so, children do often overcome barriers that many adults find insurmountable, maybe due to the neurological porosity and mental flexibility associated with youth. For example, in keeping with the Critical Period Hypothesis popular in linguistic circles, many children below the age of ten naturally acquire a second or other language (when circumstances allow), whereas acquisition is thought to become more difficult for most after this age (Penfield, 1959, as cited in Singleton & Munoz, 2011). Related to both childhood memories and childhood development, some studies have found that the way memories are formed changes at about age seven, and prior to that time events are more quickly forgotten, because neurological patterns are not yet developed enough to coalesce the multi-layered input that forms a "...complex autobiographical memory" (Bauer & Larkina as cited in Clark, 2014, ¶ 19). Therefore, maybe children can cross all times and places prior to this age, somewhat in keeping with O'Connor's comment and the Critical Period Hypothesis but have some difficulty later. Possibly humans subconsciously retain early childhood experience and, combined with later more conscious experience, it is enough for them to creatively dissipate and cross boundaries. Therefore, perhaps the experience of childhood *is* enough to write fully and understand fully as many aspects of life as needed to produce creatively.

On the other hand, "Surviving childhood", takes us to mid to late teens, though the dawning of adulthood was possibly earlier in Flannery O'Connor's time. If we initially cap the age of childhood at ten, the approximate "cut-off" age for the Critical Period Hypothesis (Penfield, 1959, as cited in Singleton & Munoz, 2011), this age group would not yet know the sensation of being eighty, what it was like to be married (depending upon the culture), or to have kids (generally speaking). Individuals might not know what it would be like to be a member of the majority or minority groups of a society (not necessarily conditional on age), or to experience what it is like to be a member of the opposite sex. Even if childhood is taken as extending into pre-teen and young-adult, members still have not experienced grandparenthood, or celebrated their thirtieth birthday. Yet, writers develop these kinds of states all the time, often regardless of experience, and to this reader's perspective, authentically so. Two cases in point, and there are many examples, are the two much older voices in Brooke Davis' *Lost and Found* (2014). Davis was 34 as of June 2014 (Hassall, 2014).

Though adherence to theory, insight or political correctness might limit the expanse of voices writers are willing to attempt (as implied by Kroll, 2006, p. 202), and socio-culturally there are many reasons why divergent voices should be approached with awareness, authentic voices beyond one's physical being and experience will still find their way to the page. O'Connor's

words might have been used to illustrate the argument that childhood experience is enough for any writer to adopt these voices, yet there are experiences, as outlined above, that are not unconditionally experienced in childhood or beyond, though they might be observed, researched and learned. The question then arises about the origin of this authenticity.

The body *does* adapt to circumstance and new pathways and cells can be generated (Palmer, 2012; Sample, 2010). McMahon (2012) states that metacognition stems from prior knowledge, but the exact nature of prior knowledge is not explored. Much of what a writer apparently does *not* empirically know might actually be accessible at a deeper cognitive level.

In keeping with the themes explored above, writers and students often produce work seeming to show wisdom beyond their years. In fact, the distance of fiction can provide the writer with a mask where they lose their own self-consciousness and fears, and write what they can, want, or need to, because it is hidden behind the banner of 'fiction' (as implied by Kroll, 2006). This can be freeing. It can also produce work that might actually reflect a deep understanding of the writer's own life and experience, without the writer actually having any such cognition; particularly a younger writer, who has possibly not wandered through any conscious avenues of awareness. Though talking about identity, and not the writing process, the discovery (or obfuscation) of self-knowledge is reinforced by Mizumura (2009) in the following passage from *An I novel from right to left [Shisosetsu from left to right]*, p. 222:

Awareness did not come all at once. Though I may have clung to my Japanese identity, I did not necessarily see myself as Asian. My mind took time to accept that I am as Asian as any Chinese or Korean. Experience *did not bring awareness*. Or perhaps I did not wish to understand my experience, preferring rather to remain in the dark. Almost constantly during the twenty years I spent in the United States, time worked patiently on me from afar and dragged me into the light (M. Mizumura, 2009, unpublished translation by J. Winters Carpenter, personal communication, Japan Writers' Conference, 2014, my emphasis).

In a similar way, writers often do not have an awareness of the implications on their own lives of what they have written, and further they often have not even had the experience they pinpoint, but their representations resonate with a wider public and perhaps with their older selves. For example, as a writer I have returned to something written when younger and, not cringed, but wondered at the acuity of the piece in relation to my life experience at the time. This is by no means the norm, (I have my fair share of cringe-worthy creations), but it does happen. This reaction indicates that, at the time of creation, I probably did not consciously have the discernment, in relation to my own life or concept of the world, that the writing possessed. Yet it existed in the product. Any number of eloquent song lyrics belie the ragged lives that their writers

live or have lived.

As a teacher, I am often impressed by the acumen, precision and sophisticated reflection on universal or personal themes submitted by students, particularly when the writing is part of a course in an EFL situation. For instance, a second year university student in one of my contentbased courses in Japan wrote the following acrostic:

Time goes by slowly there

Rushing to the point

Another day I look at ordinary scenery

In this metal cage bound to

Nagoya and back to Gifu

(S. Oita, 2014, personal communication).

Under discussion, the student stated that he did not intentionally write the double meaning that "bound" contains in this poem, and though he was aware of the negative aspects of the overall meaning of the poem, the same awareness did not extend to the particular weight that certain words such as "metal cage" carried. A Japanese university student has a very busy schedule of more than ten ninety-minute classes per week. They travel long distances to attend class, so he has the actual experience of a daily commute. He also has the experience of seeing workers crowded into the trains, and possibly his parents or caretakers have needed to make similar commutes. He is twenty-two years old. Many factors, personally, locally and globally, affect and have affected him. He does not live in a vacuum. Even so, he is not that businessman yet, and he also does not necessarily have an automatic in-depth understanding of the intricacies of English vocabulary and diction. As a reader, I think Oita has captured the idea of a daily commute as a form of prison ("metal cage", line 4) well. We vary in our ability to empathise and relate to others, but maybe there is also some of the experience of others within ourselves, on a cellular level, which makes us more likely to do so. There is even a suggestion that those who are closest to us share a percentage of like DNA with us (Kiderra, 2014).

It could be possible that the universal concepts of Oita's work, and the work of others, are related to a generational memory. Both the creation and the understanding of the work might be linked to this. In 2013 an experiment was conducted on mice whereby they were shocked when exposed to a chemical stimulating the smell of cherry blossoms. According to the research, mice born from these parents, including those born from artificial insemination, had an inbuilt fear of the smell of cherry blossoms, and this fear carried on to their grandchildren (Dias & Ressler, 2014). There are detractors of this news item (as cited in Callaway, 2013).

Furthermore, it seems the cells of a baby, or maybe even of a partner, can live on in a woman

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after she has given birth. In the case of a baby, usually the cells cross the placenta into the blood stream, but there are reports of the mother transferring her cells during breastfeeding (Martone, 2012; Liu et. al., 2014; Gray, 2013). On top of that, there is a chance that twins can pass cells to one another when in the womb, and that some cells remaining in the mother's body from a prior pregnancy will be passed onto later siblings (Martone, 2014). People can have a pre-disposition to certain types of health concerns, possibly due to the information passed, genetically, generation by generation (Painter et. al., 2008). This process is called "Microchimerism". "Women may have microchimeric cells both from their mother as well as from their own pregnancies, and there is even evidence for competition between cells from grandmother and infant within the mother" (Martone, 2012, \P 3, \P 5-7).

Maybe Oita's understanding of the restrictions of a daily commute and obligations of society, or the authenticity of his representation, might be reflective of memory, or reaction to experience, of those he is most closely related to at a cellular level. Obviously this idea is hypothetical.

Microchimerism comes under the umbrella of epigenetics, which has had a series of incarnations. The area that interests me is when cellular change in one body is inherited by another, but not due to any change in the DNA sequence. It can also cover changes to the makeup of cells which are not necessarily passed on (Epigenetics, 2014). Other findings have discovered that the neurological make-up of a child who does not properly attach to his or her carer(s) by the age of two, due to inconsistent or neglectful parenting, is different from a child nurtured with care. Research found that this neglect can carry on from generation to generation, especially as the neurological damage has already been done. Nature and nurture are obviously very closely entwined here (Palmer, 2012). The parents' stories and behaviour are imprinted on the child.

Our cells can change. They react to stress, to pleasure, to our environment. Writers Haruki Murakami (2009) and Joyce Carol Oates (in Palmer, 2010) talk about the pleasure of running, and this physical activity seems to increase cells able to enhance recall (Palmer, 2010). MacFarlane asks us to walk the streets and to open our minds (2005) and Krauth (2008) expands upon the influence of motion on our writing and proposes that our stories come physically from specific parts of our body (2010).

There are stories that are told to us, which we read, and which our imagination explores. A successful writer manages to transfer them to the page or medium of choice and hopefully readers are found who concur, adapt, change, believe, decry, and respond to his or her vision. People talk of returning to areas where their ancestral family originated, sometimes in different countries, and they often mention a sense of returning home. Of course these notions could be

little more than societal and familial conditioning, but maybe part of "home" is within them, literally, passed from one generation to another, or enhanced and stimulated through their own physical connection through time and space. If our learned behaviour can be passed on in our cells, and if we can exist with the cells of our family members within us, then maybe some of the stories of our ancestors and offspring also reside within us, and this is what allows us to express universal stories outside of our experience, and also allows others to respond to them.

Though the idea of "cellular memory" is held as pseudo-science (Carroll, 2014; Smith, 1993) certain scientific research in the areas of epigenetics and microchimerism show that aspects of the term could be entertained. Creative writing theorists at least continue to put forward the idea that stories come through to us through the body, not solely through the mind. Some science supports these notions. Naturally, it is the job of the creative writer to invent, and as one of these inventors, I have found that movement and environment enhances access to and production of content and creativity. However, exercise and environment is a large affective factor in many fields, not just creativity. If some of the findings of scientific reports are found to be credible, the authenticity of stories that are written beyond a creator's own experience may, hypothetically, be influenced by physical aspects enclosed in our physical beings.

III Conclusion

Jessica Goodfellow (2014) pens the following in the second stanza of "MEMORY: ALPHABET:", "Write it down so you remember: writing/ is not memory. Don't confuse what the body/ ekes with the sacred, what it leaks from meaning" (p. 97, lines 6-10). There are multiple readings that can be taken from these 3 lines, and one reading is that writing/creation comes from the body (rather than the memory) (6-8). The body produces both the sacred or the insightful (even if it is hard to come by, as implied by the word "ekes"), and the actual, messy, blood and guts product itself, which can be borderless, and without definition or clear intention ("leaks from"). Its form can subtract (leak) from the original divine instinctive meaning (the sacred), but it can also spill and make visible, that which is held as a secret, even if it is a leached version of the original abstract (the many readings and meanings of the word "leak" imply this). Creativity, as outlined by Harnad and others, defines both the abstract and the concrete through both the abstract and the concrete, and in abstract and concrete ways. This stanza is very nuanced and, as stated, depending upon the way the clauses are read, the meaning changes, producing seemingly contradictory sentiments. Another reading (among many) might be that what comes from the memory is the sacred, universal aspect of writing/creation, but such an analysis falls out of the scope of this current paper. Goodfellow finishes the stanza with the lines, "The cartographer's question: is it more divine to render/the visible invisible, or vice versa? Landmark or latitude?" (9-10, p. 97). Abstract (possibly sacred) or concrete (corporeal)? Memory or body?

Writing is not memory. Writing is from the body (6-8). To contradict the protagonist of Goodfellow's stanza (or, conversely, to perhaps agree with him or her), the body could be host to "dimly remembered melodies" (Gibb, 2005, ¶ 20) which filter a writer's expression. If learned knowledge can become cellular knowledge, and if cells pass from one organism to another, then possibly the origin of universal appeal, knowledge and expression of creative ideas might stem from that which has gone before us even as it exists within us.

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