When studying films it is essential to consider the broader social, cultural and historical contexts that inform the narrative and the period of production. This becomes especially relevant when analysing science fiction films, because this genre is frequently preoccupied with current and topical issues around technological advances and developments, often exploring its interest in technology through a lens of social relationships. Vivian Sobchack, one of the leading film scholars exploring the genre, has argued that science fiction offers a ‘poetic mapping of social relations as they are created and changed by new technological modes of “being-in-the-world”’.

In other words, science fiction films are often social critiques of technologies and issues that we as viewers encounter or at least understand in our everyday lives.

While there are always exceptions to linear trajectories, there are several dominant themes explored in science fiction films. Fears around the Cold War and atomic weaponry can be traced through 1950s films such as *Invasion of the Body Snatchers* (Don Siegel, 1956), *The Day the Earth Stood Still* (Robert Wise, 1951) and...
Godzilla (Ishirō Honda, 1954); concerns over ecological disasters are worked through in films from the 1970s such as Silent Running (Douglas Trumbull, 1972) and Soylent Green (Richard Fleischer, 1973); rapidly increasing urbanism and industrial excess inform Blade Runner (Ridley Scott, 1982) and The Terminator (James Cameron, 1984); the rise of the internet and intelligent computer technologies are approached in The Matrix (Andy and Larry Wachowski, 1999), Total Recall (Paul Verhoeven, 1990), Strange Days (Kathryn Bigelow, 1995) and Artificial Intelligence: AI (Steven Spielberg, 2001); and developments in genetic technologies are considered in Gattaca (Andrew Niccol, 1997), Code 46 (Michael Winterbottom, 2003) and, as this article discusses, Duncan Jones’ recent film Moon (2009).

Moon is clearly influenced by the long and rich tradition of science fiction literature and film. While many science fiction films have large budgets, Moon was made for an estimated US$5 million; a relatively small amount. Jones and his team constructed a lifelike lunar base at Shepperton Studios in Surrey, England. The exterior shots of the lunar surface and its array of machines, harvesters and robots are created largely through physical scale models as opposed to widespread computer-generated imagery, giving the film a true sense of ‘otherworldliness’.

One of the most rewarding but also challenging aspects of Moon for educators and students is the fact that there are many unanswered questions and unresolved plot points, both within the timeframe of the film’s events and in the broader and implied narrative. Moon takes place in a future where present-day troubles of climate change and finite natural resources have been overcome. Carbon emissions are no longer a global issue, since a company called Lunar Industries has begun harvesting clean-burning fusion energy (Helium-3, or He3) directly from the Moon. After a brief promotional advertisement touting the tremendous advancements and benefits that this has brought to humanity, the audience is introduced to Sam Bell (Sam Rockwell), the sole He3 miner based at the Sarang lunar base. Sam’s only company during his three-year assignment has been an assistant robot called GERTY (voiced by Kevin Spacey). His tenure is drawing to an end and he is looking forward to reuniting with his wife and daughter on Earth. However, during a routine collection of fuel from one of the harvesters, Sam begins to hallucinate and crashes his rover on the lunar surface. When he regains consciousness back at Sarang, he discovers that he is in fact a cloned human being and his rescuer is yet another Sam Bell, who has been awakened by GERTY to continue the work on the base.

For clarity in this article, I will refer to the first Sam that viewers see as Sam-1, and the second clone who is awoken as Sam-2, though I am aware that this is not entirely consistent with the film’s broader temporality.

THE DOUBLE, THE CLONE

The figure of the double or doppelgänger is a recurring motif in cinema history and film theory, often interpreted as representing a wounded or split subjectivity of the protagonist, or the ‘Return of the Repressed’. In Moon, Sam-1 comes face to face with his double after a series of hallucinations, which hint at his true identity and subjectivity. Early on, while operating the harvester control panel he sees an image of ‘himself’ appear on screen, prediacting the coming of his clone. Twice, Sam-1 sees visions of a young girl in a yellow dress, which can be seen as projections of his internal doubts and confusion as to his identity. These visions reflect the true age of his daughter Eve, whom he believes to be around two years old and whom we later discover is fifteen.
Identity and subjectivity are core issues in Moon, and the film approaches these concerns through one of the most divisive issues confronting modern science – cloning. Human cloning in particular raises a great deal of complex moral and ethical questions, as well as scientific and technological uncertainties that are not fully understood; modern-day cloning experiments do not often produce viable offspring. There are multitudes of legal, ethical and moral questions that the practice of cloning raises, including the physical, genetic, psychological, societal and relational effects and impacts on the clone and its family. Moon presents a world where the technology of cloning has been perfected and is highly developed; however, the ethical dimensions and implications have been overlooked in the name of profit and advancement.

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Lunar Industries has created a complex and wholly constructed artifice in order to impose a predefined subjectivity upon each of the clones. They have blocked the live-satellite communications between Earth and the base so that the clones cannot speak directly to any other human beings. Their only intelligent company is the robot GERTY, who maintains the Sarang base and attends to the clones’ needs. The base is in a perpetual time warp, removed from the normal passage of time on Earth. Every three years, as a new clone begins his tenure, this cyclical temporality is repeated and played out again and again, so that Lunar Industries can continue to exploit and benefit from its workforce. By orchestrating a prescribed identity for the clones, Lunar Industries uses the idea of a ‘life back on Earth’ as a motivating factor, compelling the clones to diligently complete their work. That the clones believe themselves to be human also prevents them from questioning the fact that they have been created as essentially a slave-labour force, purposefully exploited and denied basic human rights.

Yet as we see when the two Sams come face to face, they are clearly not the same person, despite sharing the same genetic code and the same memory implants. Sam-1 is a weary, slightly eccentric and wryly humorous character. His time spent working at the Sarang base has given him his own individual
memories (albeit limited in their scope of experience) and it has influenced his moral outlook and values. Sam-2 on the other hand is active, impulsive and bordering on arrogant. He represents how Sam-1, and presumably the original Sam Bell and the earlier clones, began their tenure. The idea of meeting your double means being forced to confront the less attractive elements of your own personality. At one point in the film the two Sams fight, with Sam-2 injuring Sam-1 in the process. When Sam-2 later apologises he acknowledges that he has a temper that he needs to curb, to which Sam-1 knowingly replies, ‘Yes, you do.’

The importance of recognising the autonomous identities of the clones is made clear in the final moments of the film. As Sam-2 is preparing to launch back to Earth in a cargo shuttle, he and GERTY share their final conversation. GERTY has been recording all the happenings on the base, and he encourages Sam-2 to erase his memory cache and reboot him so that Sam-2 can avoid incrimination and potentially begin a new life on Earth. As Sam-2 says during this exchange, ‘We’re not programs, GERTY, we’re people’, clearly referring to the status of the clones as unique individuals. Yet he also symbolically acknowledges GERTY’s own autonomous agency by removing the ‘Kick Me’ Post-it note stuck to the robot’s back in recognition of the sacrifices made by GERTY for the sake of another.

MEMORY AS IDENTITY

Although there are many films about space travel and cloning, the film that Moon is perhaps most akin to thematically is Blade Runner. For educators seeking further viewing, this film is an excellent choice. The replicants of Blade Runner are not clones, they are constructed humanoid intelligent beings also used to work on far-off planets doing the jobs that humans do not want to do. Early model replicants are conscious of their non-human status; later versions, however, are not, believing themselves to be human due to the inclusion of memory implants. Eldon Tyrell (Joe Turkel), head of Tyrell Corporation, explains to bounty hunter Rick Deckard (Harrison Ford) why this is so: ‘If we gift them with a past, we create a cushion or a pillow for their emotions, and consequently, we can control them better.’

Lunar Industries also uses memories to control its cloned workers. The reason that this works is because memory and identity are intrinsically linked, an idea that goes back to Enlightenment thinkers such as English philosopher and physician John Locke, who maintained that ‘there is no such thing as an essential identity, but that identities have to be constructed and reconstructed by acts of memory, by remembering who one was and by setting this past Self in relation to the present Self.’ Memory is what makes us individual and unique, defining us as autonomous beings. Memories do not exist in the human brain as exact, pre-formed replicas of...
The act of remembering is an active process, whereby ‘[old] memories are recalled in the context of the present and are then re-encoded in the context and mood of the present.’ In effect, each time you remember something you are recreating that memory. Even though the clones in *Moon* did not live the events that they remember, their memories function in the same way that memories do for non-cloned humans, as markers of identity and experience.

This can be seen in how the two Sams continue to identify as father and husband, even when they know that they are clones. When Sam-1 calls his home phone number, he discovers that the ‘daughter’ he believes to be aged two is, in fact, now fifteen. Regardless, he still possesses a strong paternal instinct, calling her sweetheart and asking tenderly, ‘How did Mommy die?’ Towards the end of the film, the two Sams reminisce about how they first met their wife, taking it in turns to narrate the same memory to each other. In this sense, the actions and experiences of a single person, the original Sam Bell, are transformed into collective memories shared by a number of beings, but which are nonetheless important in defining them as individuals.

The fact that all the clones have been given extensive and comprehensive memory implants raises the question of whether the original Sam Bell was aware of this program of cloning. While Lunar Industries may easily have had access to the original Sam’s DNA, presumably he must have consented to having his memories scanned. Whether he was made aware of the full extent of the cloning program is not addressed in the film’s plot, yet it remains an interesting point when considering the broader ethical implications. What are the rights of the original subject if their identity has been unknowingly appropriated? On the flip side, do humans have the right to profit from their genetic and cognitive imprints when it involves creating additional human life?

**CAN THE END JUSTIFY THE MEANS?**

As the promotional advertisement for Lunar industries demonstrates, humanity has clearly benefitted from the extraction of HE3 from the lunar surface. A clean, reliable and plentiful source of energy has made climate change and fossil fuel emissions a thing of the past. Yet clearly in the broader narrative of *Moon*, Lunar Industries has made a number of telling choices to reach the point where the film’s story takes place. Although these decisions are not overtly mentioned, they are important to consider in terms of their impact on the characters portrayed.

*Moon* never makes it explicit whether the original Sam Bell was stationed on the Moon, although it is implied that he was. The video messages from his wife Tess were presumably recorded for the original Sam; the message where his young daughter calls her daddy an ‘astronaut’ indicates that he was based there for a period. As some stage, however, either during or after his tenure, Lunar Industries made the decision to continue the program with cloned humans, rather than shuttling crews to and from Earth. Additionally, the Sarang base seems to have been designed to house more than one person, due to the number of rovers, spacesuits and the presence of a ping-pong table.

It is possible that the decision to start using clones was the only financially viable option, in order to continue the vast benefits of the program. It is also possible that the choice was a purely commercial decision made by a company eager to increase profits. It is hard to imagine how a seemingly multinational company would be able to maintain such a covert operation without drawing the attention of regulatory bodies, assuming their existence in the future. Regardless, there is an implied level of apathy that points to contemporary attitudes to commodity, energy production and consumption. In our contemporary lives, we purchase cheap
and homogenous clothing without considering the sweatshops and working conditions in which they are produced, often using child labour. We consume products that contain ingredients like palm oil, without contemplating the devastating effects of deforestation.

Most likely via a genetically encoded premature life span. After three years, each clone believes they will be flown back to Earth, yet instead they are cryogenically frozen and then incinerated, ready for a new clone to be awoken. Clearly, Lunar Industries have committed a series of offences in their corporate activities, not least multiple murder. However, the moral and ethical dimensions stretch to implicate humanity’s willingness to endlessly consume without considering the antecedents and the ramifications. Can the benefits afforded to millions of people through Moon’s HE3 production justify the exploitation of a small handful of human beings?

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Endnotes
2 Visually, Moon strongly recalls 2001: A Space Odyssey (Stanley Kubrick, 1968) with its barren lunar surfaces and cold, austere interiors. Upon first viewing, it is difficult not to associate Moon’s robot, GERTY, with the infamous HAL 9000 from 2001, which the recent film uses to thwart audience expectations at key moments. Sam’s hallucinatory visions of a young, dark-haired girl hark to Solaris (Andrei Tarkovsky, 1972) and the key theme of memory implants.

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makes for interesting comparisons to Ridley Scott’s Blade Runner.


5 These two Sams could also be named according to the number of clones who have preceded them. When the two Sams discover Sarang’s hidden storage room, there are five empty shelves, indicating that five clones have been awoken. This is also consistent with the film’s broader temporality, as measured by the growth of Sam Bell’s daughter Eve. If the ‘original’ Sam Bell is Sam-1, this would make the first Sam seen in the film Sam-5 and the second Sam who is awoken Sam-6.


9 However, the final moments of the film make clear through a brief audio montage of news reports, Sam-2’s arrival on Earth is met with hostility and suspicion.

10 There are a number of different versions of Blade Runner, including the 1992 ‘Director’s Cut’ and the 2007 ‘Final Cut’. In the later versions, the insertion of a dream sequence featuring a unicorn implies that the main character, Deckard, may also be a replicant without realising it.

