We Need to Talk: Language and Communication in The Martian and Arrival

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Abstract
Science fiction cinema has a long history as the stage upon which political and social fears, both real and imagined, have been played out. Fear of the other, be that a foreigner or a so-called communist; fear of technology; fear of science. This paper explores the ways in which contemporary cinema responds to some of the most pressing problems we now face as a global community: – increasing isolationism and conservatism in the post-Brexit/Trump era, mutual suspicion, and even the threat of war between nuclear powers. Two utopian science fiction films, *The Martian* (2015) and *Arrival* (2016), posit that a need for international tolerance and transparency, and above all, communication, is essential to our success, and even our survival, as a species. I argue that the foregrounding of spoken language and communication in both films operates as the argument of both texts. The utopian outcomes of these films stand as a fantasy/wish fulfilment for populations who fear that the opposite is inevitable. Finally, by looking closely at the exploration of time in *Arrival*, I argue that it is the future itself (rather than the content of that posited future) which is the true object of paranoia: That which is unknown; that which cannot be properly predicted or controlled. Only by allowing 'what is' will we cease to be fearful of the future as Louise, the central character of Arrival, shows us.

Keywords: language, communication, time, awakening

Introduction

This paper seeks to offer a close reading of a pair of science fiction films that engage discursively with the overarching theme of this conference: namely 'fearful futures'. The first is Ridley Scott's *The Martian* (2015) and the second is Denis Villeneuve's *Arrival* (2016) – based on Ted Chaing's novella *The Story of Your Life* (1998). Specifically, I want to explore the unusual strategy that both these films employ, which is to say that they present us with the same utopian solution to their rather different problematics. Both films explicitly argue in favour of transparent communication and the notion of a global community, rather than isolationism and a radical scepticism. Subsequently, I suggest that *Arrival* offers us an interesting insight into the nature of the so-called 'fearful future' by way of destabilising the 'common sense' view of time in favour of a teleological approach.

What is science fiction?

It would, perhaps, be fruitful to attempt an initial working definition of what constitutes science fiction cinema for the purposes of this discussion. However, it is an undertaking fraught with difficulty due to the extremely hybridised nature of the genre, involving a complex conversation between various semantic and syntactic codes (Altman, 1999). With this caveat in mind, I want to suggest that science fictions typically present us with invented technologies and situations which do not currently exist, in order to explore various existential, moral or philosophical problems that such technologies or situations present.

It is therefore not surprising that many science fictions posit worlds and technologies far outstripping real-world progress: faster-than-light space travel, teleportation and convincing AI to name but three. It is, in fact, vitally important that these technologies and situations remain elusive, in the future, as this allows us a certain amount of safety: we are able to entertain the problematics of the situation without worrying that it is a real-world problem. It is a problem of the *future*. This mechanism is most notable in speculative hard science fictions, which tend to operate as controlled thought experiments, and is not so prevalent in 'popular' science fictions – which, due to the complex of generic hybridisation inherent in this class of film, very often can be read as Westerns, or horror films, that happen to be set in space. The Ridley Scott's *Alien* (1979) is exemplary. There is a third, liminal class of films that some may classify as science fiction, such as Stanley Kubrick's *Dr Strangelove* (1963) and Sidney Lumet's *Failsafe* (1964), both of which come in the wake of the Cuban missile crisis of 1962 and explore the worse-case-scenario of fully mechanised nuclear deployment. Arguably, *Wargames* (John Badham, 1983) tackles this same issue at the dawn of the age of personal computers. (A young boy innocently hacks the US defence computer, with almost disastrous results.) However, I bracket this class of films here because, in each case, the technologies and situations discussed were all too real, too present, in the real world. They might even be considered a species of 'social problem' film rather than science fiction.

Clearly, *Arrival* and *The Martian* fall into the category of hard science fiction, which I hope will become clear in what follows. Finally, then, 'true' science fictions typically posit a hypothetical human or technological problem or situation, set in the future, which works as the mechanic for the film's story. But this presents us with a

potentially difficulty. As Ziauddin Sarder reminds us, "science fiction is the fiction of mortgaged futures. As a genre it makes it harder to imagine other futures" (Sarder, 2002, 1). But is this actually true?

It is certainly the case that many science fictions offer us a 'scientists playing god' scenario, a post-catastrophic future in which society has been brought to its knees by technology run wild, climate change, disease, or invasion of one sort or another. If we consider science fiction films of the 1950s we see that they were often concerned with the so-called enemy within, the threat of communism, or with the cult of conformity that characterised suburbia in the 1950s, hence films such as *Invasion of the Body Snatchers* (Don Segal, 1956) – the pod people devoid of personality who look like us but are actually eerie simulacra – or *The Thing From Another World* (Christian Nyby, 1951). Here again, an alien invader takes over the body of the victim, who remains outwardly the same, but is now horribly inhuman. And this is not surprising in the anti-communist McCarthy era. There were many other – often more literal – 'alien invasion narrative' films, again unsurprising in the wake of WW2 and the ensuing Cold War between the Eastern Bloc and the West. Films involving 'flying saucers' were common in the post-war era.

Self-evidently, science fiction is frequently the medium of choice in which to explore 'nightmare scenarios'. History has shown that scientists always 'do' because they *can*, and never seem to ask the more pertinent question of whether or not they *should*. In fact, many science fiction narratives can be reduced to this simple Faustian bargain with science. Thus, with the rise of computer technology in recent decades, generalised fears of technology gone feral have been played out in films from *2001: A Space Odyssey* (Stanley Kubrick, 1968) through *Terminator* (James Cameron, 1984) to *The Matrix* (The Wachowski Brothers, 1999), and beyond. All these films posit the binary of logical machine versus human ingenuity, with human ingenuity winning out each time. As such, these films must be viewed as wish-fulfilments. There is also a class of more philosophical films which can be viewed as ontological enquiries: What *is* it, precisely, that *makes* us human? What if we were unable to tell a machine from a human? This is the great existential fear – the fear that we are perhaps not, after all, so special. A problem that becomes more pressing as Artificial Intelligence becomes more advanced. Films such as *AI* (Steven Spielberg, 2001), both versions of *Bladerunner* (Ridley Scott 1982; Denis Villeneuve 2017), as well as *2001: A Space Odyssey* (Stanley Kubrick, 1968) explore this concept. The films *Robot and Frank* (Jake Schreier, 2012) and *Ex Machina* (Alex Garland, 2014) continue to demonstrate that "science fiction has proven extremely accommodating to the exploration of many of our most pressing concerns" (Telotte, 1995, 194). In the 1950s these concerns centred around conformity and communism; in the 60s, 70s and 80s fears centred on the nuclear threat and our own capacity for destruction (Sontag, 1966). More recently, anxieties have arisen over the ontological questions raised by Artificial Intelligence. The dark dystopian futures offered in many science fictions stand as a warning against 'runaway science' as now, or as cautionary tales of other sorts, as we find in the science fictions of the 1950s. In short, such films show us fearful futures born of uncomfortable contemporary realities, but when couched as science fictions they are comfortably disguised and, crucially, audiences are not invited to regard them as real-world problems. However, it is important to note that these are W*estern* concerns formulated in a genre that does not exist in the same way in other parts of the world (Sarder, 3).

With the above in mind, it is interesting to note that both *The Martian* and *Arrival* are conspicuously devoid of many of the conventional tropes of science fiction. There are no awkward computers, and no scary monsters. What is the fearful future that they explore? Uncharacteristically, they do not present us with a problematic dystopian future with which to grapple; a future in which everything has always already gone wrong. Instead, they present us with a utopian vision of the direction in which we ought to be travelling. This makes them highly unusual, as they operate in reverse. In these cases, the 'fearful future' is here, in the real world, and not on the screen. In what follows, a close reading of both films will explore the ways in which they manage this.

Home Alone

The Martian is essentially a rescue narrative. Here, Mark Watney (Matt Damon) is part of a team of astronaut scientists conducting various experiments on Mars. When the team have to return to Earth suddenly, due to an immense storm, Watney is injured. The Captain and crew believe him to be dead and leave him behind. What follows is a species of Robinson Crusoe in space, in which Watney has to figure out how he can survive with the few provisions he has for the many months which must elapse before he can be rescued. He also has to work out *how* he can communicate with Earth, so that he can get them to rescue him in the first place. Thus the film places communication centrally to the problematic: Watney needs to communicate in order to be rescued.

First communication with home is accidental and non-verbal. Back at NASA, technicians notice that certain vehicles are not always in the same place on the planet's surface, leading them to infer that Watney is still alive. Subsequently, Watney manages to build a rudimentary communication link which amounts to a glorified Oiuja board. But this mode of communication proves ambiguous. The scene in which there is a discussion of exactly which inflection of "you've got to be f***ing kidding me" they should take from Mark Watney's written message to Mission Control reveals the inaccuracy and instability of written language over verbal language when stripped of other non-verbal cues.

The other strand of the film catalogues the efforts of the Mission Control team, as they attempt to work out how Watney can be rescued before he starves. Two things are key to this enterprise: transparent communication and global co-operation. To take the second case first, collaboration with other nations is positioned centrally in this narrative in a number of ways. Notably, the first US effort to save Watney fails (the payload they launch into space explodes). It turns out to be the Chinese, often figured in Hollywood as the enemy competitor, who save the day here. A Chinese payload is launched into space in collaboration with the US, and proves essential to the success of the rescue mission. Demonstrably, the US cannot succeed alone. This message of successful co-operation is doubly inscribed in *The Martian*. Not only are we offered a model of global co-operation, but also its reiteration in the microcosm of 'the team' – the remaining crew who return to Mars to rescue Watney. Any remaining doubts as to how we ought to read this are dispelled by the concluding scenes of the rescue mission. The rescue is broadcast throughout the world on giant screens. Emphatically, collectivism and the notion of a global community is

foregrounded over individual or national concerns. The world wants Watney to come home. This is not too much a stretch of the truth, as those old enough to remember the transnational interest in the Apollo 13 rescue drama of 1970 will testify. It is entirely possible.

Secondly, *The Martian* valorises transparent communication. Key to the subplot concerning the remainder of the crew who 'abandoned' Watney on Mars is the debate over whether or not they should be informed that Watney has survived. Sanders (Jeff Bridges), director of NASA, wishes to hide the truth from them to avoid unnecessary risks which would involve them trebling their time in space, alongside various financial imperatives. However, Henderson (Sean Bean) the mission's director, disobeys the directive and informs the crew that Watney is still alive. It is this transparent communication which allows the crew to volunteer their services (in collaboration with the Chinese) for the successful rescue of Watney. Tellingly, this 'indiscretion' on the part of Henderson is regarded as *undermining the authority* of the Director of NASA and Henderson is expected to resign over it, despite it being the strategy that succeeds. Transparent communication is seen as weakness – a trope that recurs in *Arrival*. Institutional fears that communication is weakness are problematised in both films.

Self-evidently, Watney can neither escape nor survive without help. In this he represents an extreme isolationist position, repudiating the familiar Hollywood trope of the lone male talking the law into his own hands, as well as offering a riposte to the concept of the so-called American Pioneer spirit. He is literally alone, and on his own he will not survive on Mars. He does not have all he needs; he has no domestic product, except for a few potatoes - a crop which fails. He badly needs to 'import' goods, metaphorically speaking. Given current US tariff wars and its increasingly isolationist propaganda, as well as Britain's intended exit from the European Union, *The Martian* clearly outlines an alternative strategy. We need to talk, and we need to get together. Unlike science fictions of the 1980s and 1990s, in *The Martian*, human ingenuity *harnesses* technology and succeeds, working in concert with it rather than fighting against it. But this must be a collective enterprise with transparent communication. In collective hands, technology is our friend. But there can be no secrets, as *Arrival* argues.

Why are they here?

On the face of it, *Arrival* seems to be an 'alien invasion' narrative like any other. Here, twelve egg-like alien space craft arrive, only to hover ominously above various apparently arbitrary locations around the planet. The task for the humans is to discover who they are and what they want.

Linguist Louise Banks (Amy Adams) is tasked with communicating with the aliens in the US, alongside physicist Ian Donnelley (Jeremy Renner). When they get to the stage of rudimentary communication – interestingly achieved by way of writing rather than speech due to the fact that the alien 'Heptapods' resemble octopuses and seem only to make spluttering sounds – the aliens seem to say, "offer weapon". As with the written communication in *The Martian*, when stripped of non-verbal cues (due to the very alien nature of the Hepatapods) this phrase is revealed as highly unstable and ambiguous. Is it a demand, or an offer? And what is meant by 'weapon'?

Up until this point, all nations have been in communication with the Heptapods, and have been sharing with one another the small inroads they have each made in communicating with them. Now, the Chinese, here conventionally set up as the aggressive enemy of peace, decide that the message means 'use weapon'. They break off all communication with the Heptapods, and with all other nations, and everyone else follows suit. The Chinese then give the aliens an ultimatum, declaring war, along with Russia, Pakistan and the Sudan. (Villeneuve has not selected these countries by chance.) We see clearly that once the channels of communication break down between nations, disaster soon follows.

Now working in isolation, Louise and Ian discover that the information, the 'writing' the Heptapods have been using to communicate – which takes the form of complicated circular symbols requiring the user to know what they were going to express *in its entirety* before they even begin the utterance – represents only one twelfth of the complete 'message' the Heptapods have imparted to humanity. The other 11 portions have been given to the other 11 nations hosting an alien spacecraft. In this, the aliens force humanity into regarding itself as a single community, not a loose collection of individual nations. As with *The Martian*, only by collaboration will the human species achieve its goals – here figured as learning what the aliens want.

Communication itself is the key to this project. It transpires that it is the Heptapod writing, the language itself, which is the 'tool', the 'weapon' that the aliens give us: communication literalised as a means of advancement of the species. Their language and thought system is a gift. Tellingly, the US Army do not want the aliens to learn English – they only want to learn the Heptapod language, representing a one-way, utilitarian approach to communication. They fear transparent communication as potential weakness. By contrast, Louise opts for a holistic interpersonal approach to communicating with the aliens. After a frustrating period of slow progress following the Army protocol, Loiuse steps up to the glass wall separating her from the Heptapods and places her palm against it. When the Heptapod on the other side responds with a similar (unexpected and slightly scary) gesture she declares "now that's what I call a proper introduction". It is from this point that communication between them becomes possible. Furthermore, when Louise finally breaks through the communication blackout instigated by the Chinese and communicates verbally with General Shang (Tzi Ma) on the phone, persuading him to stand his nation down from attacking the aliens, this communication is seen as actually treasonous. Louise is almost shot, underscoring the view that, in the eyes of the military, communication is seen as weakness, and as dangerous. This mirrors the authoritarian view of communication exemplified by the Director of NASA in *The Martian* - discussed above. The film repudiates this position, of course, as does *The Martian*. In *Arrival* it is the moment at which nations *cease* to communicate with one another that the real threat of self-made disaster looms.

But the film trenchantly argues *for* communication. Communication changes the way we see things. This is literalised in *Arrival* due to the film's discourse about time: the Heptapods do not see time as linear, for them it is simultaneous. This is how the Heptapods are able to write the way they do. Humans experience time as linear, and events in order of sequence, giving rise to a perception of cause and effect. However,

Heptapods experience all events as concurrent, and perceive a purpose underlying them all. It is a teleological view of experience – this is why they do what they do.

Figure 1: Louise learns to write Heptapod B

Learning the Heptapod language, and communicating with them, *literally changes the way Louise sees the world*. She no longer sees a linear world of cause and effect, but a world of simultaneity. This is figured in the film by way of an accumulation of time-slips which we at first read as flash-backs from Louise's point of view. Later on, we come to understand that they are not; nor are they pre-figurings of event to come. Actually, they are moments of simultaneity experienced by Louise, and we realise that the film has begun *in media res* as it were. Louise thus exemplifies the teleological approach to phenomena, brought about by her exposure to the Heptapod language and thought system. As the film progresses, Louise's experience of cause and effect becomes increasingly tenuous. She is free to choose to do what she was always already bound to do. Action becomes performative, as if it was a play. Action is seen as a 'mandala', a 'meditative state' an expression of timeless being rather than a linear chain of so-called events moving forward through time. This is how she is able to repeat to General Shang his wife's dying words, words she will only hear in the 'future'; words which persuade Shang to change his mind and stop attacking the aliens. Crucially, it is Shang himself who communicates these words to Louise in the 'present-future'. He literally tells her what she told him in the 'present-past'.

What all this means is that there are alternative ways of viewing experience. With this in mind, it will be meaningful to consider Pierre de Fermat's 'principle of least time,' at this point. Formulated in the 1600s, this principle describes the way in which light travels through different mediums, the relevance of which I hope will become clear below – as its ramifications are implicit throughout the film.

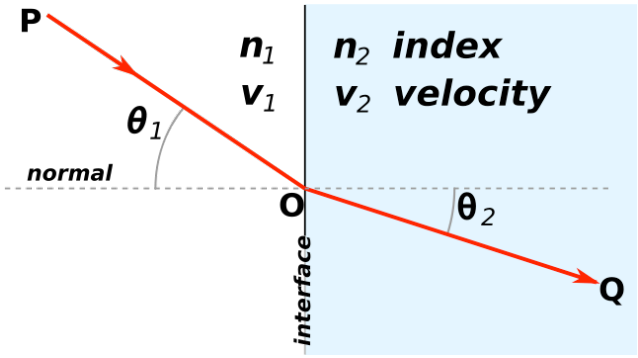

Figure 2: Fermat's Theory of least time

The figure above shows what happens when light hits water at point O in the centre: it seems to bend. Fermat's principle suggests that the time to get from P to Q is minimized. The light particle takes the quickest path to get there – the path of least time. We are used to thinking of refraction in terms of cause and effect: reaching the water being the cause and the change in direction being the effect. Fermat's principle suggests something different. Light 'chooses' the quickest path to its destination. But that would seem to mean that it knows in advance where it is due to end up. One rendition is causal, the other purposive, teleological. One of these descriptions depends on time, the other does not.

For physicist Ian, who sees a world of cause and effect, water bends light. In Louise's world of simultaneity, light always-already knows where it is going, and simply takes the shortest path to get there. Similarly, for Ian, who sees time as linear, Louise's actions seem reprehensible, actually causing the future that he regards as fearful – namely the illness and death of the daughter that they have/will have together. We come to see that for Ian the future is so fearful, in fact, that he cannot face it and exits the family unit. For Louise there is nothing to fear because the future does not exist as a separate entity. This is strongly figured in her choice of pregnancy, given the 'future' in store for her daughter. *Arrival*'s discourse regarding the perception of time and so-called events obviates the need for the future to be a perpetual object of fear, because it is not presented as an existing, separate state. Louise has no fear of the future because for her it does not exist.

If this argument for the non-linearity of time seems whimsical, it is worth comparing the following symbols:


Figure 3: Ensō (L) and Heptapod (R).

The symbol on the right is an example of the Heptapod language as depicted in the film; the symbol on the left is the Japanese symbol ensō. In Zen Buddhism, ensō represents perfection, enlightenment, a state of timeless being. The circle can be

described either open or closed. Bearing this in mind, the argument above now makes sense. The Heptapod world-view is now seen as an awakened perspective – awakening in the sense of spiritual enlightenment – and this is their gift to humanity. From this perspective, ideas such as a privileged personal self, individualism, or of individual nations simply collapses (Adyashanti, 2008). All that remains is a sense of 'we'. Given the plot of *Arrival*, this 'we' also includes non-human beings and non-terrestrials.

Conclusion

Like *The Martian*, *Arrival* persistently foregrounds the value of communication. Indeed, I suggest that the plot revolves around our being able to solve the problem of why the Heptapods are here, *by way of* communication. To put it another way, the Heptapods are perceived as a 'problem' only *until* we are able to communicate with them. At the half-way point, with only partial success in communication, the problem *increases* due to *mis*understanding (figured by the Chinese face-off). Only when Louise properly communicates with the Heptapods – from a point in the 'future' where she can already understand the Hepatapod language in its entirety – only then does she discover why they are here. They will need our help in the future, so they are giving us the technology to do so. She finally discovers that there is really no 'problem' at all, from our point of view. *Arrival's* utopian vision presents us with the apogee of this: it offers a possible future in which all nations are united and in communication. Indeed, it is from just such a position of global unity that Shang unproblematically communicates, or will communicate, with Louise in the 'present-future', even sharing his phone number with her. This is actually crucial to the plot, as it enables her to call him in the more problematic 'present-past' and avert the Chinese face-off with the Heptapods.

Finally, I suggest that co-operation on a global scale is figured as the primary solution to the problem that each film posits. In *The Martian* it is the sharing of technology and resources – the Chinese payload; in *Arrival* it is the sharing of information – the Heptapods' language and mathematical system. In each film, a sub-communication proves vital to the success of the mission: Henderson's communication with the rest of Watney's crew in *The Martian*, and Louise's conversation with the Chinese leader in *Arrival*. Each time this communication is regarded by authority as treasonous and/or dangerous. Both films problematise this position. Unusually, and against Sarder's proposition, they *do* allow us to imagine other futures: they offer a positive vision of what *could be* in the face of evidence that we are actually doing the opposite. Common sense would suggest that this is not rocket science, to coin a phrase, but ironically, in these two science fiction films about space travel we learn that this is *precisely* what it is – rocket science. Which is another way of saying that common sense is perhaps misnamed – sadly, it is not common at all. In their own way, both films argue that our survival depends on our moving away from a view characterised by 'me and mine' to an intersubjective view of 'us and ours'. In *The Martia*n this is figured by a spirit of collective enterprise, but *Arrival* argues for a radical transcendental solution. We need to keep talking, yes, but we also need to wake up.

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