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Interstellar Dreams Big

A Review of

Interstellar (2014)
by Christopher Nolan (Director)

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Reviewed by

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Movies that aim to ask and answer *big questions* are generally rare. Where do we come from? Where are we going? Is there some higher influence at play in our destiny? Perhaps the most famous of the films to try, *2001: A Space Odyssey,* remains one of the most talked about (and debated) inquiries into our own fundamental nature. *2001* set the tone for science fiction until the release of *Star Wars* made gun-toting space operas the norm, the latter a fact many sci-fi fans still lament (see Beale, 2014). But a few films since *2001* have tried to recapture that existential exploration and often reveal the pitfalls of such attempts. Even the *Alien* universe set off on a darker existential exploration with *Prometheus,* a grimly beautiful film despite its glaring plot holes (why, for instance, would aliens place stellar maps around Earth leading to the ammunition dump set up to wipe us out?). *Interstellar,* directed by Christopher Nolan, is the latest in this tradition, a film both brilliant and flawed, but, whatever its limitation, certain to set the imagination onto the origins of humankind.

Set several generations in the future (exactly when is cleverly never specified, helping *Interstellar* avoid the obvious obsolescence of *2001* or other sci-fi films with dates such as *Blade Runner*), humanity is beset by an Earth slowly being strangled. A pathogen called Blight is wiping out most of the Earth's crops and slowly consuming the oxygen in the atmosphere as well. The human population has fallen dramatically and it's merely an issue of time before the planet is uninhabitable. Fortunately, a mysterious force has provided a potential escape via a wormhole in the outer solar system that leads to other worlds. Preliminary one-way missions to these worlds suggest that several may be inhabitable by humans. The remnants of NASA send the Endeavor, with Cooper (Matthew McConaughey), Amelia (Anne Hathaway), and two other astronauts to decide which planet should be the destination for the exodus from Earth.

Cooper is selected for the mission not by NASA but by a mysterious force that seems to inhabit his daughter's (Murph) bedroom and which sends him the coordinates of the secret NASA facility. Indeed the motherly presence of an alien race gives hope in the first act of the film, with Amelia experiencing a curious "high five" with an otherwise unseen presence during the Endeavor's trip through the wormhole. But the humans in the film are clearly being helped by some benevolent exterior force. But who and why?

Once on the other side, the astronauts must choose between three planets to investigate, with limited time and fuel. Since the worlds revolved around a black hole rather than traditional sun, time is a particularly interesting commodity in this film. One of the worlds is so close to the black hole that time dilation results, minutes spent there are years to the rest of the universe.

One of the fascinating things about *Interstellar* is the degree to which it tries to work within the confines of physics as we understand it today. *Interstellar* is more science than most sci-fi stories (compare it to *Guardians of the Galaxy* for instance, an excellent comic-book sci-fi story capitalizing on the space opera trend started by *Star Wars*). But this element of space and time that threads through *Interstellar* provides an interesting side story as Murph grows into a young woman and begins working with NASA while her father is light years away. She becomes resentful of her father leaving, eventually coming to think he purposefully abandoned her to die on Earth. One of the film's most poignant moments is when Cooper returns from what felt like minutes on the time dilated planet to watch 23 years of communications from his family who suspect he must have died long ago.

The frailty of humanity is also emphasized by the appearance of Matt Damon as Dr. Mann. Mann is hailed in the early parts of the film as a hero, one of the self-sacrificing astronauts sent on the early missions to explore the various worlds and send data back without hope of being rescued should their worlds prove inhospitable. Mann has cracked under the strain, however, tricking the Endeavor to visit his uninviting ice planet so that he'll be rescued, but wasting most of the Endeavor's remaining fuel in the process. Mann's actions transition the film from the second to third acts, and also set up one of the most awe-inspiring moments in the film. Mann unwittingly damages the Endeavor and sends it spinning out of control. Cooper must dock a shuttle to the whirling ship in order to stop its chaotic rotations, and the tense moment is beautifully set to Hans Zimmer's pounding score. It's a moment of true cinematic artistry that will leave most viewers breathless.

It is the third act, as the limping Endeavor comes closest to the black hole, that truly begins to channel *2001*. I won't spoil the details here, but there are more musings on time and space and the hope that our species might one day transcend out current existence into something more meaningful. The origin of the wormhole is revealed in a way that leaves as many questions as answers. Indeed, this may arguably be the film's main flaw, not that it leaves us with profound questions, but rather that in trying to address its own questions, what was intended as profound often feels like a plot hole. Indeed, this was a similar problem as experienced by the darker *Prometheus*. And, in fairness, even Arthur C. Clarke had to address inconsistencies between his *Odyssey* books as due to them being parallel universes (Clarke, 1997), an arguably unsatisfying and too-convenient explanation. Big questions can be difficult to answer satisfactorily. Perhaps that's why we so seldom try.

As I write this, the field of psychology has been experiencing its own period of existential crisis. On one hand, our professional body, the American Psychological Association, has been rocked by allegations that it colluded with the Central Intelligence Agency in permitting psychologists to become involved in harsh interrogations (e.g., Reisen, 2014). On the other, many psychological precepts once regarded as fundamental "truths" such as social priming (Pashler, Coburn, & Harris, 2012), embodied cognition (Johnson, Cheung, & Donnellan, 2014), media effects (Tear & Nielsen, 2014), stereotype threat (Stoet & Geary, 2012), fMRI neuroscience (Boekel et al., in press), and positive psychology (Coyne, 2014) have all come under serious doubt due to an expanding replication crisis in psychological science.

Even if we ignore the problem of questionable researcher practices (QRPs) and transparency, it is hard not to see as a root of these issues a dehumanizing trend across much of modern psychology. That is to say, across the latter half of the twentieth century it seems that psychology has ceased to treat the human condition as a complex, agentic, meaningful experience, and rather one which can be reduced to mechanistic cause-effect relationships in which the person is a mere vessel to be acted upon. Grant money and publications, not understanding, became the currency of our field. I would argue that it is the failure of this strategy which has, in part, led to psychology's current crisis both as a research field and as one that has come to cynically view people as widgets to be manipulated whether through harsh interrogations or through more subtle although arguably no less insidious "Nudge" like principles based on social priming or other psychological theories.

But I worry that psychology has lost its humanity. Psychological science seems to have ceased asking the big questions, or trying to understand the human condition. Instead we squabble over small-scale theories, or attempt to defend the societal importance of correlational effect sizes of $r = .20$ or less. Our theories have become unfalsifiable, surviving in some undead like state even as they are rocked by replication crises. The conduct of our research has become so cynical that leading researchers openly acknowledge not reporting theory unfavorable results (see Schimmack, 2014). I argue that psychology has fundamentally lost sight of itself and what it was meant to study.

Watching *Interstellar* I was struck by how the film made a valiant attempt to explore aspects of human meaning that seem altogether absent from our own discussions as psychologists. The moment in which Cooper watches videos from his family recorded over 23 years revealed more about the human psyche than I've seen from psychological science in some time. At present, I'd argue that because of QRPs and the replication crisis, psychological science isn't doing even the narrow range of inquiries it set out to do very well. But, even more critically, psychological science has lost sight of much of what makes psychology so interesting in the first place. In this vacuum perhaps it's not surprising that so much of the public may become skeptical of psychology as a science and turn, instead, to the pseudoscience of pop psychology (Lilienfeld, 2012).

I don't have easy answers for where psychological science should go next. But I argue that we need to simultaneously strengthen our scientific culture, practices and methods, while broadening the scope of our questions. Further, we may need to seek ways to abandon mechanistic assumptions of human nature without abrogating careful, objective scientific inquiry. *Interstellar* reminds us that humans are part of a bigger, complex, meaningful universe. Too often, it seems, in this universe psychological science has become adrift.

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