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Tracing the Cultural Influence and Linguistic Journey of 4 Mind-Related Science Fiction Words

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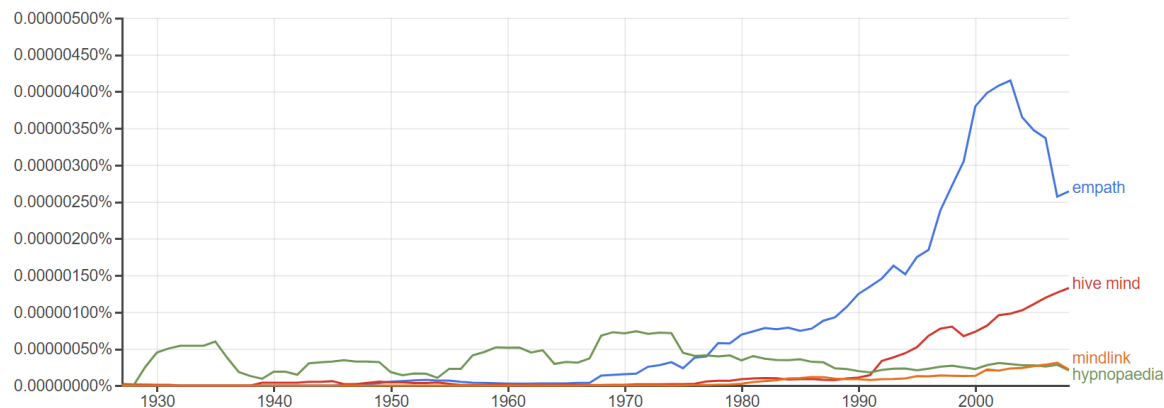
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Tracing the Cultural Influence and Linguistic Journey of 4 Mind-Related Science Fiction Words

Intro

Science fiction is a place where fears, hopes, and ideas about the future can be expressed. These fears, hopes, and ideas often take form linguistically as new words. Many everyday scientific words have come from science fiction, including robotics, virus, deep space, and gas giant (Prucher). Popular psychology/mind related words have also come from science fiction, including empath. Others, like hive mind, did not originate in science fiction but were popularized through it. Some mind related words, like mindlink and to a lesser extent, hypnopaedia, are not as commonly known today. While we often think of science fiction as separate from us, it instead serves to magnify feelings and fears of the time. Science fiction words are uniquely positioned to be interpreted and used in a vast range of ways – that is, after all, what science fiction does: break boundaries. Empath, hive mind, and hypnopaedia break boundaries and enter new contexts, while mindlink remains delegated to fiction and product/company promotion. It is no accident that popular words like empath, hive mind, and hypnopaedia were all attached to major books, TV shows, and movies. To succeed, a science fiction word must be specially positioned and relevant to the times. Using Google Ngram and Google books, this paper will explore the history of the words empath, hive mind, hypnopaedia, and mindlink and try to explain how they left or stayed in science fiction.



Empath

In *Brave New Words*, empath is defined as “a being with the mental ability of empathy” (Prucher). Empath comes from the root word empathy, which was coined relatively recently in 1909 by Edward Bradford Titchener in “Lectures on the Experimental Psychology of the Thought Processes” (“Empathy”). Since 1909, empathy has skyrocketed in popularity and remains a highly popular and well-used term today. The popularity of empathy may in part account for the popularity and success of the word empath. While empathy emerged in psychology, empath came from science fiction. The first known use of the word empath was in 1956 in J. T. McIntosh’s *New Worlds*: “How exactly does the government use empath? Tim shrugged. ‘We can tell the level of a man’s loyalty just by meeting him. We can walk around a factory and sense that there’s going to be a strike’” (Prucher 50). This first usage sets empath as a distinct kind of people with a supernatural ability to sense emotion. Empaths are both “self” and “other”. To sense others’ feelings is part of what makes us human, and in that sense, empath is part of the “self”. But Tim’s use of “we” also sets him and other empath apart from everyday society – they are supernatural humans and part of the “other”. This tension between “self” and “other” continues as the word empath is used in various contexts. It is not clear, either, if empath is a source for good or evil – in this context, it is ambiguous. Being able to “tell the level of a man’s loyalty” seems

like something a good person would do, because loyalty is valued in our society. But being able to “sense that there’s going to be a strike” is less clear. To the boss, that is good. But to workers trying to unionize, that empath is a force for evil. It does not indicate either how empaths use their powers (for good or evil), simply that they have them. Empath is used again in 1960 in the magazine *Amazing Science Fiction Stories*: “For a hypersensitive empath, it was sheer hell” (*Amazing Science Fiction Stories* 138). This indicates that being an empath is a heavy burden to bear. This theme of pain from being an empath continues throughout its usage.

In the late 60s, two works popularize the term in science fiction: “The Empath” episode from *Star Trek* (1968) and *The Left Hand of Darkness* by Ursula K. Le Guin (1969). In this episode, an empath named Gem heals the injuries of Kirk, Spock and friends. But once again, there is the theme of pain – she must take the crew’s injuries on herself briefly before they are healed. In the end, the empath was being tested for compassion – if she passed, her people would be saved (Mooney). Testing empaths and giving them weighty responsibilities is a trope that continues in later understandings of the word. In a blog post reviewing the episode, Darren Mooney writes it was “very much a ‘humans are special’ story” that implies that “humanity’s greatest virtue might be its empathy or compassion” (Mooney). In this episode, empaths are sympathetic characters that do good – it surely captured the minds and imaginations of viewers. Although *Star Trek* was cancelled after 3 seasons, audiences watching reruns were likely captivated by “The Empath” (The Editors of Encyclopaedia Britannica). *The Left Hand of Darkness* also likely helped empath become firmly engrained in science fiction. It was a highly popular novel then and remains a staple of science fiction today. She enforces the idea that being an empath makes someone special and is an innate ability by calling a character a “natural empath” (Le Guin).

The use of empath in these popular works drew the attention of Issac Bonewits, a Neo-Druid. He was the first person to use empath in a non-sci-fi context in his 1971 book *Real Magic: An Introductory Treatise on the Basic Principles of Yellow Light* (Bonewits). This book went over basic laws of magic, relating them to the basic laws of the universe. Now empaths were not beings in far-off galaxies, but special humans here on Earth. Bonewits described three types of empaths: empath, controlled empath, and total empath. Some of these ideas were definitely borrowed by science fiction, such as empaths being “overloaded” and drained as Gem was in *Star Trek*. Interestingly, Bonewits does not attribute his understanding of empath to science fiction, instead crediting it as a “psi talent” (Bonewits). Perhaps there was a psi book that discussed empaths, or perhaps there was a certain shame in admitting a term came from fiction. Admitting empath came from science fiction might have, in Bonewits’ eyes, decreased the legitimacy of his claim. It is unclear why Bonewits did not credit science fiction, the clear origin of the word empath. Editions of his book were published again in 1979 and 1989. This kept the idea of empaths as a real concept in the public consciousness for decades.

Empath: One who can use the psi talent of empathy.

Empath, Controlled: As used in this text, someone who uses psychometry and/or empathy and/or absorption, occasionally to the point of draining others of their psychic energy.

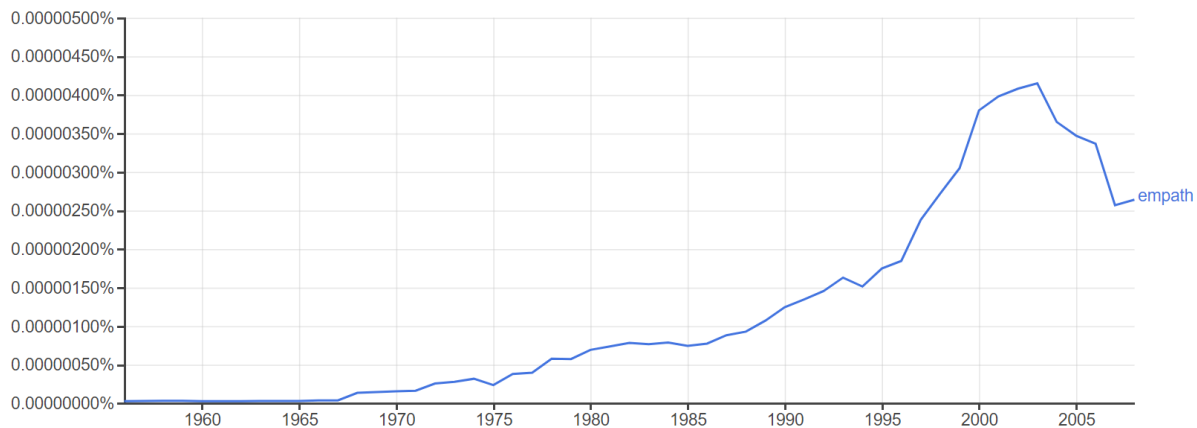
Empath, Total: One who has trouble controlling their empathic and/or other passive psychic talents, and subsequently gets “overloaded” with data and power.

Although the first empath in 1956 was male and Le Guin’s 1969 empath was nonbinary, empaths in the early days were often women. This was likely influenced by *Star Trek*’s representation of an empath as a vulnerable, but useful woman. In the literature I surveyed on Google books, there were some exceptions. In *The Fantasies of Harlan Ellison* (1979), the narrator remarks that the male empath could’ve had an administrative job in the circus (Ellison). This is much more agency and autonomy than his female empath counterparts are usually given in other


sci fi stories. The Empath Gem was a literal object in the 1977 book *Aliens* (Aliens). And in the 1977 *Orbit* anthology, the empath was an “it”, small, treated like an object, and described as having “wincing slightly” and “gave a tiny shudder” (Orbit). Empaths who were women were referred to in a similarly disempowering manner. Like patriarchal views of women, these empaths were often portrayed as vulnerable, useful to men, and natural. Female empaths were child-like in a 1960 edition of *Amazing Science Fiction Stories* (*Amazing Science Fiction Stories*), vulnerable and “couldn’t endure” in the 1979 book *The Bloody Sun* (Bradley), and are girls in both *Quest* (1977) (*Quest*) and the 1973 publication of *Analog Science Fiction/Science Fact* (*Analog Science Fiction/Science Fact*). Girls and children in general are vulnerable, so making these empaths children or child-like marks them as vulnerable too. Female empaths are also referred to in terms of their usefulness. In *Quest*, Marilla the empath’s “talent would be useful if they found intelligent beings on another world” (*Quest*). In *The Bloody Sun*, the empath “answered that need” and “gave you what you needed most” (Bradley). Not only do female empaths give, it is “natural for her to give” (Bradley). The idea of empaths being natural is further emphasized in *Quest*: “This is what it was to be an Empath” (*Quest*). All in all, traits of female empaths in 60s and 70s science fiction are based on patriarchal notions of women being sensitive, vulnerable/child-like, giving, emotional beings. These notions are treated as synonymous, clearly demonstrated in *The Bloody Sun*: “And she answered that need because she’s a woman, and kind, and an empath” (Bradley).

After *Star Trek* and *The Left Hand of Darkness* bring empath into mainstream science fiction lexicon, the word appears in many sci fi books and magazines. It also begins to be used in more-varied ways – in the 80s, the word empath was less tied to the idea of a vulnerable, kind woman. Empaths became more varied in their representation as they gained agency, power, and popularity in science fiction. In 1990, empath left science fiction again in the horror book

Necroscope IV: Deadspeak by Brian Lumley. Empath is not defined – perhaps the term was well-known enough in fiction that Lumley did not feel the need to explain. In 1992, empath is used to market LDS Inc’s EmPath software, which promised to support the user when they moved between DOS and UNIX (“EmPath”). Science fiction words including empath, mindlink, hypnopaedia, and of course android have all been used to market products or give a company a futuristic vibe. Empath really began to be used in more varied contexts starting in the 90s.



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It appeared in the *Dungeons and Dragons*-like game *Contact* in 1994 as a kind of creature in the game (*Contact*). In 1997, it appeared in *Leading Issues in African American Studies*. The book discussed the famous *Star Trek* episode “The Empath”, using *Star Trek*’s definition of an empath as one who can absorb damage and trauma, but can only absorb a certain amount safely. The book said that “European America has used African America as such an empath” (*Leading Issues in*

African American Studies). Now we see empath is started to be used for social commentary. As empath is used more widely, it is often quoted as being the property of *Star Trek*, a *Star Trek* word rather than a science fiction word more generally. Many of the science fiction words discussed here will follow a similar pattern of being attached to popular works that use the word. The 2000 self-help book *Becoming an Empath: How to Develop the Power of Your Emotional Intuition* explicitly focuses on the idea of being an empath and gives a guide to better sensing the feelings of others. This trend of self-help books either promising to help you become an empath or giving advice to empaths continues through the 2000s and remains popular up through the present day. But the word is also used to poke fun. Celebrities are called empaths in a tongue-in-cheek way in social commentary books. Oprah is “our national media empath” (Gross) and Clinton is “so open to suggestion as to be practically an empath” (Rubenstein). Empath is not defined or taken seriously in these books – a sign that the word has had enough common usage that it doesn’t need to be explained. There are other signs that people in the real world calling themselves empaths is not taken seriously, such as in the 2004 book *Americana*: “every other Santa Fean seemed to be a transmedium, or an empath, or a vivation professional” (Sides). Saying that so many people “seem to be” implies being an empath isn’t legitimate. This quote also shows that many people are self-identifying as empaths. In the 2006 self-help book *Their Last Painting*, author Jean Lazar identifies herself as an empath. In *Freeing Keiko: The Journey of a Killer Whale from Free Willy to the Wild*, a woman named Dianne Robbins says she is an empath and that being an empath “is not easy” (Brower). With people self-identifying and authors usually not feeling the need to define empath, the word has clearly taken hold of the public consciousness by the 2000s and into the modern day.

Empath also became a standard in occult/parapsychology literature. It appeared for the second time in the occult in the 1993 book *To Ride a Silver Broomstick* by Silver Ravenwolf, which sticks to the vanilla definition of “To be an empath is to experience the same emotions as the person who is near you or speaking to you” (Ravenwolf). It also appears in the 1998 book *Creators and Friends: The Mechanics of Creation*. In this context, you must train to become an empath or are already one. Becoming an empath is adjacent to becoming “a creator”: “Becoming an empath is very often the final, if not one of the final, steps to becoming a creator” (Shapiro). Once again, being an empath is linked to immense responsibility, hard work, and power. The idea that empaths have immense power in creation appears again in the 2004 book *The Messiah Seed* which proclaims “to be an empath is to have the ability to be anything ... to be an empath is to be exercising your power of reality creation” (Waters). The way the occult and parapsychology talks about empath fringes on saying they are god-like (or will literally become god) with their immense powers.

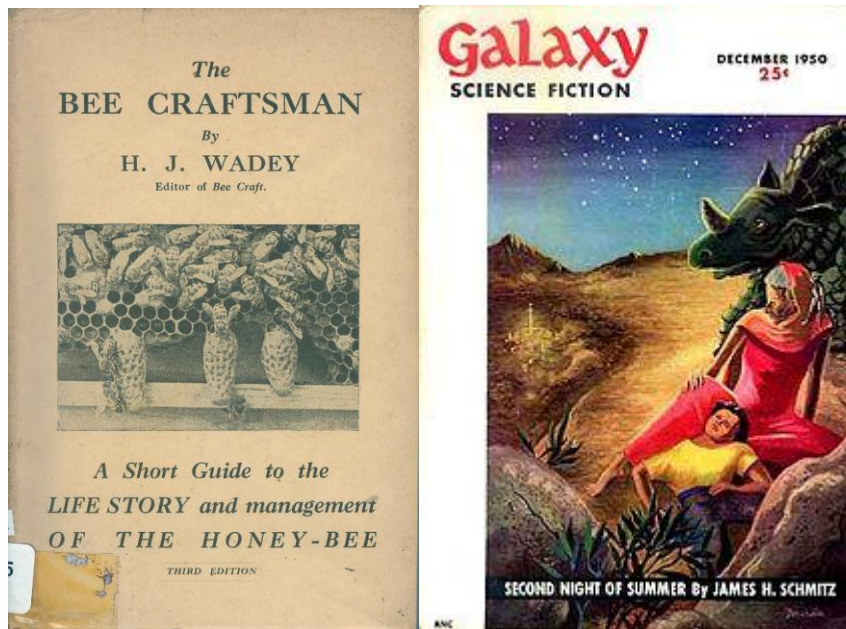
All these ways of imagining empaths, whether with god-like powers in the occult, a special useful talent in self-help books, or as an esteemed profession, reflect American individualism. America has a long history of being individualistic – Americans focus on qualities that make them separate from others, such as being an empath. Americans in the past and even more so today feel that “their attitudes about the relationship between the individual and the greater whole were unique and special” (Daniels). Alexis de Tocqueville, a 19th century French diplomat, said of Americans: “they conceive a high opinion of their superiority, and are not very remote from believing themselves to be a distinct species of mankind” (Daniels). Empaths are that “distinct species of mankind”. In many ways, the word empath's popularity in the US is just another symptom of American individualism and exceptionalism. Although no definition of empath is

explicitly “for the US only”, it is logical that such an idea would thrive here. The manner in which empath is used takes on ideas about individualism – empaths are almost always mentioned as individuals. They are invariably “the empath” or “an empath”. Although Gem, from Star Trek, was part of her species of empaths, she as an individual was selected to be tested. Time and time again, empaths are characterized as special, skilled, powerful individuals – of course Americans would want to be one.

Hive Mind

Brave New Words defines hive mind as “[the perception of hive insects such as ants and bees as existing as units of a whole, rather than individuals] a GROUP MIND, especially applied to insects or insectoids” (Prucher). While empath has always been desirable and aligned with the “self”, hive mind deviates from being aligned with the “other” or the “self”. Hive mind did not originate in science fiction, although science fiction amplified its popularity and brought it into the mainstream. Hive mind appeared first in a very “other” context: to describe bees. In his 1943 book *The Bee Craftsman: A Short Guide to the Life Story and Management of the Honey-bee*, Herbert James Wadey described the hive mind as the “strange and mysterious collective mentality” that “guides the destinies and decisions of the hive” (Wadey). Already, hive mind is clearly marked as other; it is “strange and mysterious”. Predictably, this snappy new phrase is quickly picked up in bee-keeping circles. It appeared in the 1944 edition of the magazine *Bee World*, although still in quotes, signifying the newness of the phrase. Wadey’s new phrase greatly influenced the bee keeping world and by 1958, it was called “the famous Hive Mind” in the journal *Beekeeping* (*Beekeeping*). Bee keeping sources from 1952 (*Bee-keeping with Twenty Hives*), 1958 (*Beekeeping*), and 1985 (*New Beekeeping in a Long Deep Hive*) all explicitly credited Wadey with the phrase. But after 1985, hive mind stops being so tied to Wadey’s name in bee keeping circles

and the larger insect community. In insect contexts, hive mind instead becomes attached to author Kevin Kelly or to no one in particular. Hive mind likely became untethered from Wadey because science fiction amplified its popularity, turning it from relative obscure term to one used in many contexts in the modern day.



The reason for hive mind's success and current modern popularity is undoubtedly due to science fiction. Hive Mind was picked up in science fiction in 1950, less than 10 years after it was first coined by Wadey in 1943. It appeared in J. H. Schmitz's *Second Night of Summer* in the magazine *Galaxy SF*: "The Halpa have the hive-mind class of intelligence, so what goes for the nerve systems of most of the ones they send through to us might be nothing much more than secondary reflex transmitters" (Prucher). The Halpa are clearly not aligned with the humans narrating. The humans trying to explain the differences in intelligence and body (nerve systems) clearly demonstrates this. This hive mind also has a unique way of communicating, a trend that will continue throughout the usage of hive mind. Hive mind is used again in the 1952 edition of the magazine *Science Fiction Adventures*: "In the depths of his consciousness a soundless voice

implanted a conviction; this was the hive mind, the racial soul” (Science Fiction Adventures). The hive mind “implanted” the conviction; it is external and once again, communicates in an alien way. After these two stories, hive mind is not used again in a sci fi context until the 60s, but already the stage has been set by these early works. These early stories characterize the hive mind as a distinct other that communicates in ways unfamiliar to humans. The 1958 sci fi story *To Marry Medusa* connects hive mind to ideas about the future of technology and communication. Theodore Sturgeon writes “a species did not reach this high a level of technology without the hive mind to organize it” (Sturgeon). To have a hive mind is to have access to advanced technology. This is a precursor to the way hive mind would later be used to describe the Internet. Sturgeon also writes: “the unity of the human species, its hive mind, so that each ‘person’ could reach, and be reached by, all persons” (Sturgeon). This sounds just like the internet – an advanced technology that allows all people to connect to form a giant hive mind. This discussion of a hive mind as being associated with advanced technology and communication set the phrase up as a perfect linguistic tool to understand the novel phenomenon of the internet. Sturgeon also painted the hive mind in a more sympathetic light. As a user on comicsgrinder.com pointed out, Sturgeon talks about the hive mind as inevitable and beneficial (Chamberlain). Sturgeon’s use of hive mind seems to have made a stir in the sci fi community. The 1963 edition of sf magazine *Amazing Stories* attributes hive mind to Sturgeon (*Amazing Stories*). Hive mind starts to really take hold in science fiction after this. It appears in *Star Born* (1957), *Things* (1964), *The 1976 Annual World’s Best SF* (1976), *The Encyclopedia of Science Fiction: An Illustrated A to Z* (1979), *Analog Science Fiction/science Fact* (1981,1982), *Dragon Mag* (1982) *Exploding Sun* (1984), *Amazing Stories* (1988), and many more sci fi books and magazines. It remains a staple in science fiction today. Although sf books don’t seem to formally recognize bee keeping as the birthplace of hive mind, the common use of

insectoid alien creatures, especially in the early stories, is a nod to hive mind's roots. *Star born* mentions "insects with a hive mind" and in *Dragon Mag*, there is an "insectoid hive-mind race" (Prucher). Hive mind is brought further into the public's consciousness with a race known as the Borg, who first appeared in *Star Trek: The Next Generation's* 1989 episode "Q who?" (Higgypop).

As with empath, the extensive use of hive mind in science fiction caught the attention of those in the occult and parapsychology communities. Hive mind first appeared in these contexts in the 1979 book *The Game of Life*. It was written by Timothy Leary, a psychologist and LSD advocate who in his book, reinterpreted tarot cards. He interpreted "The Tower" tarot card to mean breaking free from the hive mind by using LSD to self-actualize and learn about the structure of your mind. For Leary, the hive mind had negative connotations and was something to overcome (Leary).

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Awesome
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Realities!



The Tarot card TOWER HIT BY LIGHTNING portrays the atomic structure and the neural imprint structure fissioned by the

A more vague connotation is found in the 1980 book *Psi-development Systems: A Disciplinary Matrix for History, Theory, Evaluation and Design Vol 2* by Jeffrey Mishlove. This was Mishlove's doctoral thesis, which evaluates ways to train psychic abilities ("About Jeffrey Mishlove PhD). Mishlove talks about someone called the Supreme Being, who is "most analogous

to a hive mind” (Mishlove). It’s not clear if the Supreme Being is good or bad, but for Mishlove, a hive mind is clearly someone aligned with knowledge and power. Although applied in an occult/parapsychological context, both texts describe the hive mind as something powerful. Mishlove treats hive mind in a similar way as science fiction: as something mysterious with great knowledge and power. As with empath, these parapsychological sources don’t credit hive mind from science fiction, although that’s clearly where their understanding of the phrase derived.

Although science fiction greatly increased the popularity of hive mind, the 1994 book *Out of Control: The Rise of Neo-biological Civilization* by Kevin Kelly really brought hive mind into the mainstream. Kelly’s thesis is essentially that our economy has become so complex and intricate that it is almost indistinguishable from living things. Kelly uses hive mind to demonstrate that complexity: “The marvel of "hive mind" is that no one is in control, and yet an invisible hand governs, a hand that emerges from very dumb members.” In a time when the Internet was becoming more popular and the world even more complex, Kelly’s book was timely. Many other books and magazines reference Kelly’s concept of a hive mind, often calling it “Kelly’s hive mind”. Once again, the term is credited with a new author. The magazine *Business 2.0* credits Kelly: “Indeed, cybergeographer theorist Kevin Kelly coined the phrase "**hive mind**” (*Business 2.0*). Even the 1999 book *Insect Lives*, instead of crediting Wadey, credits Kelly (Schultz). After *Out of Control*, a wave of books use hive mind to make social commentary, including *Virtual Geographies: Bodies, Space, and Relations* (1999), *Death: The Final Mystery* (2000), *(Trans)-Formations I: Identity and Property : Essays in Cultural Practice · Volume 1* (2002), *Hyperbodies* (2003), *Who Really Matters: The Core Group Theory of Power, Privilege, and Success* (2003), *Eden's Legacy* (2004), and too many others to list. Books ranging from self-help, business, law, architecture, computers, identity, and more begin to use hive mind for their uses. After *Out of*

Control, hive mind is definitely in the mainstream, no longer confined to just bees and science fiction.

Around 2004, hive mind begins to be used in books to describe the World Wide Web and *Wikipedia*. The dawn of the information age caused hive mind to skyrocket into popularity, as it was a great way to describe the uncertain and changing world. The descriptions of hive minds from sci fi writers decades before now appeared to be becoming true. Hive mind becomes a way to understand the collective intelligence of the Internet in many books and magazines, including *Richard Thieme's Islands in the Clickstream* (2004), a 2006 edition of *Newsweek*, *Print is Dead* (2007), *Eloquent Images* (2005), and more. *Wikipedia* specifically is often called a hive mind. *Print is Dead* calls *Wikipedia* “the best example” of a hive mind (Gomez). *New Media: A Critical Introduction* (2008) described *Wikipedia* as “an online encyclopedia produced by the hive mind of its many users” (Giddings). Hive mind was sometimes used to express fear about the future of the internet, but also sometimes used to express hope. Hive mind, as always, remains a mixed bag. It can be other or self, good, bad, or neutral, but it has always been used to explore the anxieties and hopes humans have for the future of technology, communication, and ways of being.

Hypnopaedia

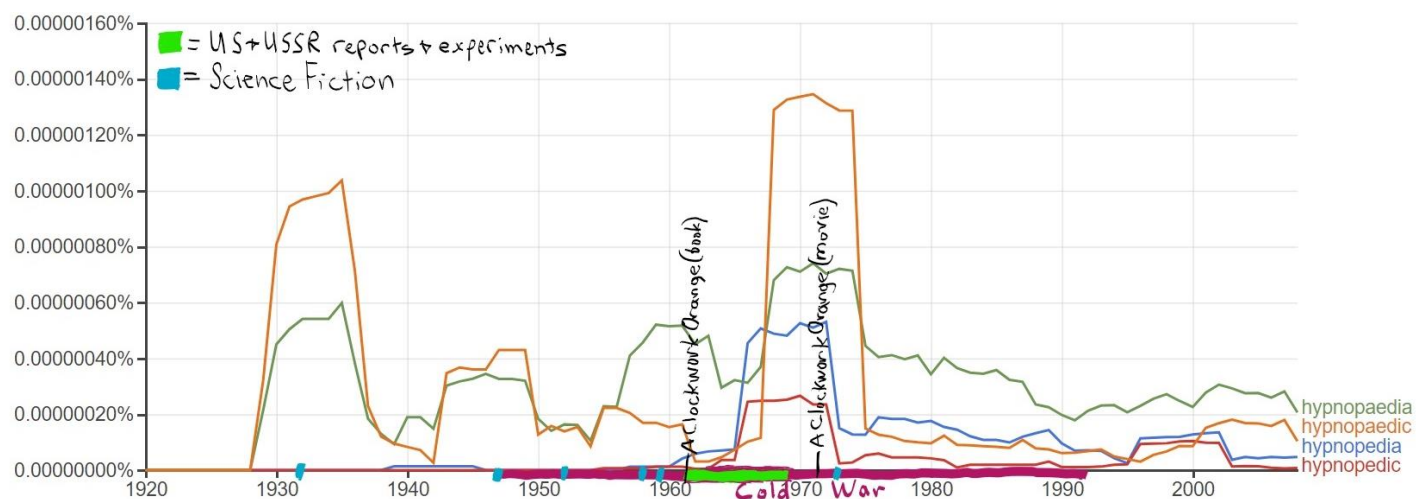
Brave New Words defines hypnopaedia as “teaching by subconscious means (especially by playing sound recordings) while the learner is asleep” (Prucher). Hypnopaedia was first coined in the highly influential science fiction book *Brave New World*, written by Aldous Huxley in 1932. In *Brave New World*, hypnopaedia, or sleep teaching, was used to impart slogans and ideas into the minds of children while they slept. Hypnopaedia was a tool used to control the masses and maintain the structure of society. The ideas from *Brave New World* were used to think about the

concept of eugenics, which was still pretty popular in the 1930s. Aldous Huxley himself was a big advocate of eugenics. In 1933, *The Eugenics Review* published a review of *Brave New World*, praising the book for exploring the ideas behind eugenics (*The Eugenics Review*). In their eyes, hypnopaedia could be a useful tool of eugenics and a way to create what they saw as a better society. The word hypnopaedia remains mostly tied to Huxley – mentions of it often reference *Brave New World*.

Some science fiction sources picked up on hypnopaedia as well, sometimes removing the first a and calling it “hypnopedia”. It appeared in stories in the magazine *Astounding SF* in both 1947 and 1957 (Prucher). Hypnopedic appeared in a story in *Galaxy Magazine* in 1952 (*Galaxy Magazine*) and in *The Magazine of Fantasy & Science fiction* in 1959 (*The Magazine of Fantasy & Science Fiction*). It also appeared in the short story *Rescued Girls of Refugee* which appeared in the sci fi anthology *Ten Tomorrows* in 1973. Hypnopaedia seems to have been most popular in 50s sci fi. Although hypnopaedia was used in sci fi circles, it doesn’t seem to have been as popular as terms like empath and hive mind. This could be because it doesn’t use words everyone is already familiar with. Empath comes from empathy and any English speaker understands what both hive and mind mean. But hypnopaedia may be less clear. It could also be that Huxley’s name was already so attached to the word. But what most likely happened is that the idea of sleep teaching left science fiction as real militaries began to research its potential. No longer in the domain of the surreal, hypnopaedia was out of place in science fiction by the late 1950s.

By the early 60s, the US and Soviet military were very interested in hypnopaedia as tool in the cold war. Hypnopaedia was first mentioned in a government source in *NASA SP* from the Science and Technical Information Office in 1962. Also in 1962, the magazine *The Incorporated Linguist* mentioned Soviets were using hypnopaedia to learn different languages (*The*

Incorporated Linguist). The word appeared in *The Soviet Review* in 1964 (*The Soviet Review*) and was mentioned in *US Government Research and Development Reports* in 1965 (*US Government Research and Development Reports*). It appeared in the US publication *Aerospace Medicine and Biology* (*Aerospace Medicine and Biology*) and *Scientific and Technical Aerospace Reports* in 1966 (*Scientific and Technical Aerospace Reports*). It continued being mentioned in government sources until about 1969.

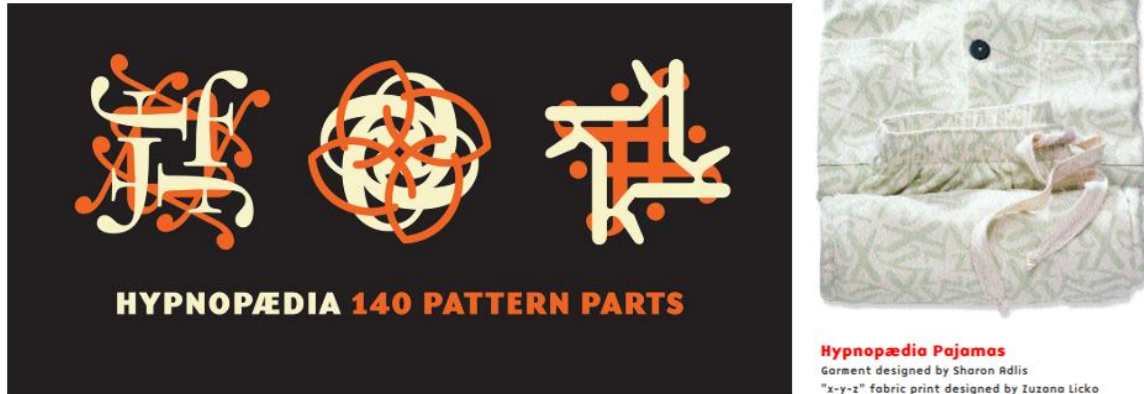


Along with science fiction, *A Clockwork Orange* also might have amplified the US and Soviet governments' interests in hypnopaedia. In *A Clockwork Orange*, Alex has hypnopaedic therapy that makes violence utterly repugnant to him. The book explicitly uses the word hypnopaedic. It was a very popular book and seems to have caught the attention of the government. The book was published in 1962, the same year *NASA SP* mentioned hypnopaedia. The government might've been interested in the idea before 1962, but that is the earliest date from the books in the Google Ngram database. Causation is difficult to tell here. Did the government become interested in hypnopaedia because of previous science fiction works and *A Clockwork Orange*? Or was fiction fascinated with hypnopaedia because the government was experimenting with it? The actions of governments (especially during the Cold War) can be very secretive,

whereas fiction is meant to reach vast audiences. The above timeline also coincides better with fiction inspiring the government. Furthermore, the US government has a history of trying out concepts popularized by science fiction, such trying to use psychic powers during the Cold War in the secretive Stargate Project (Gaia Staff). It is most likely that members of the government read these works of fiction and became intrigued, deciding to see if it would work for their own interests.

After the government lost interest in hypnopaedia, *A Clockwork Orange* the movie greatly elevated the public's interest in hypnopaedia. This movie, with its extremely graphic content, was both highly controversial and extremely popular. Tim Robey writes in *Telegraph* that "it had a phenomenal run at the box office for two straight years, before Kubrick himself pulled the film from UK circulation, alarmed and finally defeated by accusations of "copycat" rapes and killings" (Robey). The pull from the box office after two years explains the dramatic dip in the Ngram graph above. After the graphic content and real-life violence it inspired, perhaps the public wasn't very enthusiastic about anything having to do with *A Clockwork Orange*, including hypnopaedia.

Although hypnopaedia had lost the immense popularity it enjoyed in the late 60s and early 70s, it had not disappeared from the public consciousness. It had a final bow in science fiction in the anthology *Ten Tomorrows* in 1973, perhaps hoping to still ride the now non-existent wave of popularity caused by *A Clockwork Orange*. Hypnopaedia disappears from fiction after this, except to discuss the past works of *Brave New World* and *A Clockwork Orange*. Hypnopaedia appears in a predictable range of contexts after this, including in education journals, books on sleep, mental health, and babies, parapsychology, and books/journals about the Soviet Union.



In 1997, hypnopædia is chosen as the name of a series of patterns designed by Zuzana Licko of Emigre, a type foundry. This pattern was created by a rotation of letters around in a hypnotizing circle. There were even “Hypnopædia pajamas” to go along with the pattern collection. In the design world, Emigre was pretty revolutionary. Founded in 1984, they used the new Macintosh computer to create the first digital typefaces, experiment with text and images, and push the boundaries of the graphic design world (Plunkett). Overall, they were “viewed as a threat to Modernist ideals and an affront to universal notions of beauty” (Doolely). It makes sense that such trail-blazers would want to use futuristic names for their fonts and patterns to match their futuristic, revolutionary persona. Along with hypnopædia, they use other futuristic/sci fi names such as Matrix, The Apollo Program Font set, Solex, Lunatix, Lo-Res, and Elektriz. For Emigre, hypnopædia was just another way to craft their futuristic persona and sell their products. This follows a pattern empath, hive mind, and mindlink all follow: after the word has become popularized, it is used to market products or create a futuristic persona for a company.

Ultimately, there are three main contexts hypnopædia is discussed in the modern day. It is used as a Huxleyian term to discuss *A Brave New World* or in social commentary. The 2008 book

Celebrity Culture in the United States used hypnopaedia as something to fear: “Are elections simply People’s Choice Awards? And do we have real political debate and discourse or a brave new form of Huxleyian hypnopaedia that lulls us into McWorld?” (*Celebrity Culture in the United States*). It is also mentioned as a font, although not often. A 2001 edition of *Eye: The International Review of Graphic Design* mentions hypnopaedia as a font, disconnected from the word’s history (*Eye: The International Review of Graphic Design*). Hypnopaedia is also discussed as an actual scientific concept, although notably, always in the past tense and in terms of what people tried to accomplish, not what was solidly achieved. The 1999 book *Mind Myths: Exploring Popular Assumptions About the Mind and Brain* discusses the history of hypnopaedia in a psychological sense, with much discussion of the famed Soviet experiments that never yielded concrete results (*Mind Myths: Exploring Popular Assumptions About the Mind and Brain*).

Hypnopaedia doesn’t seem to have kept the attention of the public; it’s not a commonly used term today. Even in science fiction, which propelled it into brief bouts of popularity, doesn’t use the word. Hypnopaedia’s ties to the eugenics of *Brave New World* and the violence of *A Clockwork Orange* popularized the term, but also made it repugnant by association, causing it to lose popularity. Like hive mind, it can be something to fear, as in *A Clockwork Orange*, something to hope for, as in the governments who hoped to make their military stronger and smarter, or something less clear, as in *Brave New World*. In modern contexts, it is mostly relegated to Huxley, parapsychology and past experiments, or sometimes in reference to Emigre.

Mindlink

Of the words examined in this paper, mindlink has had decidedly the least impact on society. In *Brave New Words: The Oxford Dictionary of Science Fiction*, mindlink is defined as

“a telepathic connection between two or more people” (Prucher). The previous words (empath, hive mind, and hypnopaedia) are all specific concepts that describe a specific relationship between the mind and something else. By contrast, mindlink seems quite vague. The lack of specificity in mindlink might account for its lack of popularity. But the lack of specificity has also allowed mindlink to be applied to a range of contexts in the 21st century.

Like empath and hypnopaedia, mindlink was first coined in science fiction. It appeared in *Galaxy Magazine* vol 25 in 1966: “the universal mindlink nullified the effect of any device, mechanical or psychological, that an Auxorean — even he — might use against another” (*Galaxy Magazine*). Already mindlink is characterized a powerful; it “nullified the effect of any device”. Mindlink appears again in a 1969 edition of *The Magazine of Science Fiction* and in the 1970 book *House in November* (*The Magazine of Science Fiction*) (Prucher). In 1978, mindlink appeared in *The Star Trek Reader IV*, which likely boosted the popularity of the word (Roddenberry). Mindlink was sometimes used as a synonym in Star Trek for the famous Vulcan “mind meld” (“Mind Meld”). Mindlink appears in 80s science fiction in *God Stalk* (1983), *Degradation Rites* (1986), *Lost Years* (1989), and others.

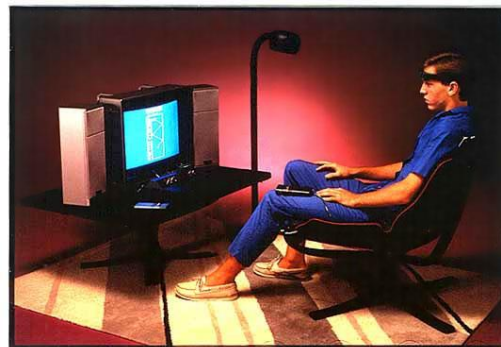
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Mindlink’s popularity in science fiction led to Atari attempting to create a device that could be controlled by the player’s mind. By the 80s, Atari was leading the industry in at home video

games and entertainment. Ambitiously, Atari tried to create a device called the Atari Mindlink System which would work with the Atari 2600 console. An initial prototype was created by 1983 and Atari planned to release the Mindlink by mid 1984. However, Atari's ambitions were limited by the technology of the time. Instead of being controlled by the mind, the Mindlink was actually controlled by the player moving muscles. You could even put it on your bicep and move it that way. Although it didn't work the way Atari engineers had originally envisioned, the Mindlink was still set to be released. However, when Atari's Consumer Electronics and Computer Divisions was bought by Tramiel Technologies, that all stopped. Tramiel Technologies was not impressed by the Mindlink and trashed the idea. The Mindlink never made it to eagerly waiting consumers. But others were still interested in the idea, including Rafer Johnson, the then president of the Special Olympics. Johnson proposed that Atari could make more devices like the Mindlink so that physically handicapped people could have access to computer programs. Unfortunately, Atari declined the offer, having already lost tons of money on the Mindlink (GameHead Nes).

Atari's use of the word mindlink inspired similarly named products and companies. *The Seybold Report on Professional Computing* reports a new software called Mindlink that "gives a computer user encouragement in losing weight, quitting smoking, increasing confidence, and attaining other worthy goals" (*The Seybold Report on Professional Computing*). In the 90s, another software named MindLink is mentioned in *MacUser* and the magazines *Popular Science*, *PC Mag*, *The Rotarian* and *CIO*. This software is designed to "foster creative thinking and problem-solving techniques" (Free). SkaSYNC®MindLINK Headphones are marketed in a 2003 European Energy Therapies conference manual. Here, we see mindlink has been used for parapsychology just as the other terms have. This conference was for energy psychology and energy therapies – subjects in parapsychology. These headphones claimed to create "scalar fields induced with specific

information of music, positive, affirmations and sounds of nature” and promised to “tell’ the solution” to your problems telepathically (Courtney).



This wasn't mindlink's first appearance in parapsychology. A mindlink between cetaceans, and humans was discussed in the *Interspecies Communication Newsletter*. Interspecies Communication was a US nonprofit dedicated to creating a relationship between humans and animals – cetaceans like whales and dolphins were common subjects. The newsletter describes: “Stories about a direct human/cetacean mindlink have always existed as a quiet undertone at the various scientific and environmental conferences – the stuff of backroom discussions” (*Interspecies Communication Newsletter*). For this organization, mindlink was a way to describe a telepathic connection between species.

Mindlink remained popular in fiction in the 90s. It started being used in fantasy books like *The Last Dragonlord* and *Tigana*. The fantasy author Gayle Greeno was especially fond of the word. In the 2000s, mindlink continued to be used in fiction. Although it never gained popular usage like empath and hive mind did, mindlink continues to be utilized today. When you search mindlink into Google, Mindlink the software company and Mindlink the Dungeons and Dragons spell show up on the first page. The Atari Mindlink System and a single science fiction book are buried in the third page.

Mindlink did not have a highly popular work of fiction to propel it into common usage as hypnopaedia was propelled by *Brave New World* and *A Clockwork Orange*. Unlike hive mind, mindlink was never used in a successful social commentary book like *Out of Control*. Although it was mentioned in Star Trek, and gained recognition and use from that just like empath did, it was not enough to make mindlink a commonly used word in the modern day. Now, mindlink is mostly used for companies, technology, and in fiction.

Conclusion

Empath, hive mind, hypnopaedia, and mindlink have unique histories and trajectories after they leave science fiction. More popular words like empath and hive mind entered a vast range of contexts, propelled by popular media in science fiction. Hypnopaedia was popular because of *Brave New World*, *A Clockwork Orange*, and US & Soviet interests, but isn't as relevant today as empath and hive mind, so it has lost relevance. Although mindlink did appear in *Star Trek* and had a chance at stardom through the Atari Mindlink, mindlink has mostly only been used in science fiction, product names, and a little parapsychology. Science fiction creates a unique opportunity for ideas about the future to be tried out. Science fiction is a linguistic generator of words about the future. If the timing is right culturally, science fiction can propel a word to common everyday usage.

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