

Subliminal Priming in Cultural Content: Strategic Applications in Digital Games, Films, and National Soft Power

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Abstract

Digital games are a widespread form of entertainment and cultural expression that engage millions of people worldwide and significantly influence cultural and social dynamics. In this context, there has been a growing trend of embedding advertisements, ideologies, and messages into cultural media, including games, movies, comics, and anime. This paper examines the subliminal effects of such practices and explores their connection to the 1942 series of shooter games that were released in the 1980s. It investigates how visual elements and repetitive stimuli in these games influence players' subconscious perceptions and explores the application of similar techniques in other cultural media. The study highlights cases in the United States, Japan, and China where subliminal priming has been used to reinforce national images and brands while demonstrating how these methods contribute to enhancing soft power through cultural content. The findings highlight the potential long-term impact of subliminal priming on individuals' perceptions and behaviors. They also emphasize the need for future research to distinguish between its ethical and malicious applications. By proposing a theoretical framework for its positive use, this paper aims to support the development of cultural content that fosters ethical and constructive influence globally.

Keyword : Subliminal, Priming, Game, Cultural Content, 1942 Series

1. Introduction

First released in 1984, the 1942 series is a top-down arcade shooter set during World War II. Players take control of a P-38 Lightning, a well-known American propeller fighter aircraft, to engage in battles against Japanese fighters and warships. The gameplay features waves of relentless enemies and culminates in challenging boss battles at the end of each stage, often involving large bombers or battleships that dominate the screen.

It is noteworthy that the 1942 series was developed by the Japanese game company CAPCOM. [Table 1] provides a detailed summary of the 1942 series, highlighting its gameplay mechanics, historical

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references, and significance within the arcade gaming genre [1].

[Table 1] About the 1942 Game Series

Category	1942	1943 The Battle of Midway	1943 Kai
Release	1984	1987	1988
Developer	CAPCOM (Japan)	CAPCOM (Japan)	CAPCOM (Japan)
Platform	Arcade	Arcade	Arcade
Genre	Top-down view Shooting	Top-down view Shooting	Top-down view Shooting
Features	Emergency Escape 'Loop' Maneuver	Durability & Fuel Gauge System	Durability & Fuel Gauge System, Pilots a Biplane

In many games, the narrative often reflects a nationalistic perspective and features a protagonist from the developer's country who triumphs over the antagonist. However, as shown in [Fig. 1], the 1942 series breaks away from this conventional structure. This serves as an example of how the game differentiates itself from traditional nationalistic narratives by incorporating a storyline where players use a fighter plane from a former enemy nation to defeat their own country's military forces.



[Fig. 1] Gameplay Screen from the 1942 Series: A U.S. Fighter Jet Facing a Large-Scale Assault by the Japanese Military (The unit highlighted with a red circle represents the player-controlled aircraft.)

This study examines the underlying intentions behind the design and development of the 1942 series of shooter games by applying the theory of subliminal priming to explore how subtle and unconscious influences may have shaped their creation. Influences may have shaped their creation, and this study aims to uncover how subliminal effects were incorporated into the games by analyzing examples of national cultural content that illustrate their application. To deepen the analysis, political statements and policy frameworks issued by national governments during the relevant period will be examined. By

connecting these policies to subliminal priming techniques, the study seeks to reveal the underlying motivations and strategic objectives that may have driven the development of the 1942 game series.

2. Subliminal Priming Technique

Psychologist Sigmund Freud posited that human psychological phenomena originate from the unconscious mind rather than occurring randomly, while Carl Jung described the subconscious as the hidden source of all conscious thought, despite its seemingly minimal influence in daily life [2][3].

Subliminal priming is a technique that uses stimuli below the threshold of conscious awareness to subtly influence individuals without their knowledge. These cues, when effectively designed, are difficult to detect yet can shape motivation, guide conscious actions, and integrate into long-term memory to influence future decisions. Subliminal priming can also facilitate subconscious learning, operating without the individual's active attention [3-5].

A well-known example of subliminal priming is James Vicary's 1957 experiment, where he claimed that displaying subliminal messages in movie theaters for 1/3,000 of a second at 5-second intervals increased sales of cola and popcorn. While the methodology and results of the experiment remain controversial, it generated significant academic interest in subliminal priming across various disciplines. Recognizing its potential influence, countries like the United States, the United Kingdom, and Australia have banned subliminal advertising to prevent misuse [6]. [Table 2] provides a summary of the primary techniques and representative examples of subliminal priming [3].

[Table 2] Typical techniques for subliminal priming

Type	Explanation
Subliminal stimulus	Continuous presentation of low-intensity stimuli that are difficult for subjects to perceive consciously.
(Inverse) Masking of Visual Information	Utilizing various forms of visual information, such as brightness, texture, frequency, timing, and color masking.
(Inverse) Masking of Auditory Information	Embedding subliminal messages into regular music recordings by concealing low-frequency sounds beneath high-frequency sounds.
25th Frame Technique	Inserting a subliminal stimulus image into the 25th frame of a 24-frame-per-second film.
Altering Favorability Through Olfactory Stimuli	Utilizing undetectable odors to influence social favorability toward a person's face or a specific target.
Repeated Exposure to Subliminal Messages	Managing phobias, regulating emotions, enhancing motivation, influencing positive or negative behaviors, and improving academic performance.

One of the most widely used and easily recognizable examples of subliminal priming is product placement (PPL) advertising. PPL involves exposing specific products, trademarks, or logos within various forms of cultural content, such as movies, TV shows, dramas, and animations, to increase consumer awareness and create a favorable brand image. This technique can be considered a form of subliminal priming because it embeds brand images into the subconscious of viewers [7].

PPL is closely associated with neuromarketing, which uses tools like electroencephalography (EEG) and functional magnetic resonance imaging (fMRI) to analyze consumer brain activity. By examining subconscious processes behind decision-making, neuromarketing helps marketers understand consumer behavior and psychology. For example, studies show how brand visibility influences preferences. In one experiment, participants rated Coca-Cola and Pepsi when served in unbranded cups, preferring them at 51% and 44%, respectively. However, when branded cups were used, Coca-Cola's preference rose to 65%, while Pepsi's dropped to 23%. This demonstrates the subconscious impact of branding, highlighting the effectiveness of strategies like PPL and brand association [8][9].

Subliminal priming techniques are discreetly applied in various cultural content encountered in everyday life, and there are frequent cases where such techniques are planned and promoted at a national level to create synergy with other industries. These methods can influence individuals without their awareness and increase the likelihood of their actions aligning with the creator's intentions. Therefore, it is essential to thoroughly analyze the types, examples, effects, and underlying intentions of subliminal priming techniques to preemptively address their impact and potential risks. A deeper examination of their broader implications is also necessary [10-13].

3. Examples of Subliminal Priming Techniques by Country

3.1 The United States

In the international arena, coercive force is often represented through military and economic power, collectively referred to as 'hard power.' In contrast, the concept of 'soft power,' first introduced by Joseph Nye, a former U.S. Assistant Secretary of Defense, emphasizes the ability to influence others through intangible resources such as culture and ideology [9][12].

Soft power is the ability to shape others' preferences through the appeal of cultural and ideological assets, while avoiding the resistance and backlash often linked to hard power. The United States has strategically leveraged its soft power by promoting its culture on a global scale, thereby solidifying its position as one of the world's most influential nations [12].

[Table 3] provides a summary of key cultural content that the United States has utilized to enhance its soft power and extend its influence worldwide [9].

[Table 3] Examples of Cultural Content Used for Subliminal Priming in the U.S.

cultural content	Explanation
Hollywood movies & Walt Disney Animation	Following the 1920s American economic expansionist mantra, “trade follows the movie,” U.S.-made product sales roughly doubled in countries where U.S. films were shown. Hollywood also helped create a positive image of the U.S. military, particularly its weapons.
American dramas	The 1990s sitcom <i>Friends</i> boosted sales of apparel and accessories worn by its characters and popularized the American dining lifestyle, including brunch. The show <i>Sex and the City</i> increased tourism to New York City by showcasing art galleries and cafes, and elevated featured brands to luxury status in many countries.
MTV	Multimedia music videos, combining sound and visuals, exemplify the globalization of visuals while maximizing the convergence of entertainment and advertising.
Steve Jobs & the iPhone	Drawing on Steve Jobs’ concept of emotional capitalism, rumor and mystique marketing fostered a loyal consumer base that readily embraced the iPhone.
Google & its influence (Googleification)	By creating a strong social proof effect with popular search terms, monopolizing markets through vast capital and technology, and leveraging accumulated data, companies like Google enhanced advertising effectiveness and market dominance.
Wikipedia	IPatforms like Wikipedia foster collective intelligence through large-scale online collaboration. However, they have been criticized for the dominance of English, which often reflects Western-centric and occasionally racist perspectives.

The United States has strategically employed various genres of cultural content to construct a positive national image and embed it into the minds of consumers. This national image, often referred to as a ‘national brand,’ encompasses a composite of societal, political, historical, cultural, artistic, economic, and sporting attributes that are associated with a particular country. National branding plays a significant role in shaping consumer perceptions by linking these associations to products originating from that country. This connection between a country’s image and its products is a crucial factor influencing consumer purchase decisions, as it often enhances the perceived value and desirability of goods linked to a strong or favorable national brand [14-16].

3.2 The Japan

Japan has implemented a government-led policy to build and strengthen a new ‘Japan brand.’ This policy aims to expand global demand for Japanese products, reduce its historical image of aggression, and promote pro-Japanese sentiment, especially in Asia. Central to this effort is the Intellectual Property

Strategy Program, which leverages the global popularity of Japanese pop culture to enhance the country's soft power and cultivate an appealing cultural image. A flagship initiative of this strategy is the 'Cool Japan' project, launched in 2002 as a national campaign to promote Japanese culture on a global scale. The Japanese government has actively intervened in cultural production through legislation and public institutions to establish and disseminate a unique cultural identity. By promoting specific cultural practices and values, the project aims to create a cohesive and attractive image of Japan that resonates internationally. Key statements by senior Japanese government officials and the strategies employed to develop Japan's national brand are summarized in [Table 4] [10].

[Table 4] Japan's Intellectual Property Strategy Program: Remarks by Senior Government Officials and Policy Content

Remarks and Policies (Year)	Details
Prime Minister 'Yasuhiro Nakasone' (1986)	Japanese people must be proud of their traditions and strive to convey the 'real' Japan, which is often misunderstood abroad, to promote world peace and prosperity.
Prime Minister 'Junichiro Koizumi' (2002)	Declared in the annual policy speech that the government would develop a national policy on intellectual property, focusing on innovative and creative content products.
Strategic Committee for Intellectual Property Rights (2002)	Highlighted the need to shift Japan's industrial strategy from manufacturing to the creation of valuable information due to concerns over declining industrial competitiveness.
IP Strategic Program (2004)	Stressed the content industry's critical role in driving economic growth and strengthening Japan's 'soft power,' urging all stakeholders to view its development as a national priority.
Follow-up IP Strategy Program (2005)	Proposed a hybrid branding strategy combining 'Cool Japan' content products with traditional Japanese elements such as food, fashion, and regional brands.
Prime Minister 'Junichiro Koizumi' (2005)	Cited Japan's long history of overcoming its wartime past through peace education and ODA, linking it to the country's right and responsibility to take a leadership role in global affairs.
Minister of Foreign Affairs 'Taro Aso' (2006)	Urged "everyone in the Japanese content industry" to collaborate with traditional cultural diplomacy channels to refine and promote Japan's brand globally.
Minister of Foreign Affairs 'Taro Aso' (2007)	Highlighted in a speech that manga is a universal medium capable of uniting hearts and minds, underscoring its role in Japan's peaceful cultural leadership on a global stage.
Strategic Program (2007)	Emphasized the need for Japanese people to rediscover and appreciate the 'charm' of Japan while actively promoting the image of 'charming Japan' abroad to build a 'beautiful Japan' that is trusted, respected, and loved worldwide.
Intellectual Property Strategic Program (2007)	Envisioned a "Japan Culture and Industry Strategy" where intellectual property drives economic growth by showcasing Japan's unique advantages and cultural identity to the world.

Intellectual Property Strategy Program (2008)	Strengthened the global presence of Japan's food culture, regional brands, and fashion through education, training, and marketing initiatives. Introduced the 'Collective Brand System' for Japan's regional products, recognizing outstanding contributors to this effort.
Minister of Foreign Affairs 'Masahiko Komura' (2008)	Appointed the animated character Doraemon as an official ambassador for Japanese animation, aiming to foster global understanding and friendship with Japan.

The primary objective of the 'Cool Japan' project is to restore Japan's national pride and craft a politically significant image of the country for both domestic and international audiences. This is achieved through the selective appropriation, promotion, and integration of cultural products. Rather than relying on direct promotion, the project adopts a strategy of delivering curated, high-value information about Japan and its cultural appeal in a tangible and appealing manner. The project aims to convey the message that Japanese people are kind, creative, decent, curious, fearless, and brave to consumers who engage with Japanese pop culture. These subtle messages act as a form of minimal intervention, influencing markets in the consumer's home country while linking Japan's cultural image to the performance of its export industries. This approach exemplifies the use of cultural content as a tool of soft power [10].

The impact of the Cool Japan initiative and its associated intellectual property strategy program is evident in a variety of cultural content. In addition to the 1942 series of shooter games discussed in this paper, prominent examples of Japanese cultural content include cases associated with the 'Rising Sun Flag'. Specific examples of such content are summarized in [Fig. 2] [17][18].



[Fig. 2] Evocative scenes of the Rising Sun Flag in Japanese cultural content

The Rising Sun Flag was used as the flag of the Japanese Navy and Army during World War II and continues to be widely used in Japanese society today. It is prominently featured on the flags of the Japan Maritime Self-Defense Force. It is regarded as a central symbol of Japanese imperialism and

militarism, as it reinforces nationalism through the deification of the emperor. Many Asian countries perceive it as a historical emblem of the humiliation and suffering caused by Japan's past acts of aggression. After World War II, the Emperor's party and the military, who were not punished as war criminals, gradually expanded the use of the flag in the name of rebuilding Japan's past glory. As a result, they created cultural content that emphasized nationalism and reinforced right-wing ideologies, which allowed these symbols to spread throughout popular culture [11][19]. Similarly, subliminal priming has been employed to glorify Japan, justify its past invasions of Asia, and foster a sense of familiarity with the country. Relevant examples are summarized in [Table 5].

[Table 5] Suspected Cases of Subliminal Priming Embedded in Various Japanese Cultural Content

Year	Title (genre)	Description
1988	Grave of the Fireflies (Animation)	An animated film that depicts the sacrifices of civilians during World War II through the story of a brother and sister who perish. By focusing on the suffering of its people, the film portrays Japan as a victim of war.
	Dragon Quest 3 (Game)	Requires players to visit a Japanese-inspired town called 'Jipangu' to obtain a crucial quest item. (Jipangu is the term used by Marco Polo to describe Japan in his travel accounts.)
	The Silent Service (Comic, Animation)	A manga where a submarine operated by a Japanese Self-Defense Force crew—renamed 'Yamato' along the way—defeats major Soviet naval forces and the U.S. 7th Fleet. The submarine eventually reaches the U.S. mainland, where its captain addresses the United Nations.
1997	One Piece (Comic, Animation)	Features a character named 'Roronoa Zoro', who wields three swords and uses techniques rooted in Japanese swordsmanship. The series includes enemies named after Japanese actors like 'Masuda Yusaku' and 'Tanaka Kunie', as well as cultural references such as 'Yokozuna' and cherry blossom viewing ('hanami').
1998	Metal Gear Solid (Game)	A stealth action game featuring a competent scientist nicknamed 'Otacon,' who assists the protagonist. An avid fan of Japanese anime (hence his nickname), he plays a crucial role in advancing the plot and reflects a positive portrayal of Japanese culture.
1999	NARUTO (Comic, Animation)	A manga and anime series where the Hokage rock sculpture resembles Mount Rushmore, blending Western iconography with a ninja-centric Japanese setting. The protagonist's yellow hair and other Western features integrate different cultural elements into the traditional Japanese ethos.
2001	Final Fantasy 10 (Game)	An RPG set in a fantasy world, incorporating areas inspired by Japan's Okinawa region. It features a summoner named 'Yojimbo,' and the soundtrack includes music composed with traditional Japanese instruments, infusing the game with Japanese cultural elements.
2004	Shining Tears (Game)	In a Western fantasy-themed RPG, the inclusion of a Japanese shrine maiden as the heroine and ninja characters, along with areas resembling Japanese shrines and villages, adds a cultural blend to the setting.

2005	Men of the Yamato (Movie)	Highlights the humanity and sacrifices of the sailors aboard the WWII battleship Yamato, presenting the crew as victims of war while invoking national sentiment and pride.
2011	Walkure Romanze (Game, Animation)	A game set in a Western-themed jousting academy where students practice jousting. While most characters wear traditional Western armor, a few are depicted wearing Japanese samurai armor, blending cultural elements.
2013	Combined Fleet Girls Collection 'KanColle' (Game)	Features characters designed as a fusion of Japanese-style beautiful girls and WWII warships, predominantly from the Imperial Japanese Navy. The game fosters familiarity with Japanese naval vessels and subtly associates them with national pride and militarism.
2015	Big Hero (Movie)	A city modeled after San Francisco incorporates Japanese architectural elements and cultural styles, likely influenced by the Japanese art director. Japanese martial arts form the basis for teaching robot combat techniques, blending global and Japanese themes.
2016	Demon Slayer: Kimetsu no Yaiba (Comic, Animation)	The male protagonist wears earrings shaped like Japanese zodiac signs, with his character and production design symbolizing flames that evoke the sun god Amaterasu, reinforcing connections to Japanese mythology.
2016	Uncharted 4: A Thief's End (Game)	The protagonist and his brother explore a mansion containing artifacts, including a Japanese samurai helmet, as they search for their mother's relics. The helmet is explicitly identified as originating from the Tokugawa period, embedding historical references into the storyline.
2020	Animal Crossing: New Horizons (Game)	The game features the character 'Ogol,' whose actions and speech are reminiscent of a Japanese samurai, with a red, circular sun symbol resembling the Japanese flag on his cheek. It also includes the legendary fish 'Japanese Salmon' and portrays traditional Japanese festivals such as 'Hinamatsuri.'

Cultural content reflecting Japan's nationalistic and right-wing elements continues to spread rapidly, gradually permeating public consciousness [11].

3.3 The China

Following a similar trajectory to the United States and Japan, China has prioritized the expansion of its soft power as a means of shaping positive global perceptions of its image and fostering greater interest in Chinese culture. This effort is part of a government-led national policy designed to actively promote and disseminate traditional Chinese culture through cultural exports. By enhancing its soft power, China seeks to bolster its international competitiveness, expand its influence on the global stage, and reap economic benefits while improving its national image. These initiatives are also aimed at counterbalancing the cultural dominance of the United States as a leading global influence.

Statements by Chinese leaders and the policies underpinning this soft power strategy are summarized in [Table 6] [2][12][20][21].

[Table 6] Statements by Chinese Leaders and Policies to Enhance China's Soft Power

Remarks and Policies (Year)	Details
'Hu Jintao' comment (2007)	17th National Congress of the CPC. Emphasized the need to strengthen culture as part of soft power to guarantee the basic cultural rights of the Party and people. Stated that China's international competitiveness should be enhanced through cultural development with Chinese characteristics.
'Xi Jinping' comment (2013)	National Propaganda Work Conference. Highlighted the importance of promoting Chinese culture globally by telling China's story in a way that is accessible to overseas audiences and using language that resonates internationally.
'Xi Jinping' comment (2014)	Stressed that increasing China's soft power and providing a compelling Chinese narrative should be the Party's goal to effectively communicate China's message to the world.
State Administration of Press, Publication, Radio and Television (SARFT)	Identified the film industry as a key cultural platform. The government exercises strict control to align artistic content with state policies and objectives, ensuring films support China's soft power strategy.
'Xi Jinping' comment (2017)	19th National Congress of the CPC. Identified storytelling as a strategic tool for enhancing China's cultural soft power, emphasizing its role in presenting an authentic and dynamic image of China to the global community.

The Chinese government considers film a powerful cultural tool because it conveys social messages, shapes public opinion, and influences governments and politics on a global scale. Under Xi Jinping's leadership, China has strategically used its cinema industry to foster cultural resonance with international audiences. This strategy highlights interactive and immersive storytelling through digital media. To address the relatively low global competitiveness of its cultural content, China has focused on adapting successful international stories and infusing them with Chinese elements, rather than creating entirely new narratives. As part of this strategy, China has made significant investments in established film intellectual property (IP). For instance, in 2016, China's Wanda Group acquired Legendary Pictures and began actively participating in film production [2][12].

Simultaneously, China has expanded the use of subliminal priming techniques by embedding Chinese cultural elements, symbols, identities, and values into film narratives. These elements are distributed worldwide through storytelling, which establishes a subtle yet impactful presence of Chinese culture on the global stage. Specific examples of these techniques are outlined in [Table 7].

[Table 7] Examples of Subliminal Priming in Chinese Films

Year	Movie Titles	Subterminal priming examples
2009	2012	Highlights China's technological and organizational prowess by depicting a massive ark for humanity's survival being built in China. The destruction of a U.S. aircraft carrier crashing into the White House symbolizes the U.S. collapsing under its own power.

2014	Transformers: Age of Extinction	Features Chinese tourist destinations in the background and portrays Chinese soldiers as heroic, playing a crucial role in the battle against robots. Chinese brands and companies are shown prominently, sometimes to an excessive degree.
2015	The Martian	Depicts the CNSA secretly providing advanced rockets and technology to assist NASA in a crisis. Highlights China's technological and humanitarian contributions, portraying the country as an indispensable partner in solving global challenges.
	Mission Impossible- Rouge Nation	Includes illuminated scenes of a Chinese light opera performance at the Vienna Opera House, subtly showcasing Chinese cultural influence in a global cultural venue.
2016	Independence Day: Resurgence	Highlights a Chinese commander leading a lunar base defending Earth. The commander sacrifices himself to evacuate his men, emphasizing responsibility and heroism. Chinese products like QQ messenger and drinks with Chinese characters are also featured.
	The Great Wall	Depicts the historical greatness of China, centered on the Great Wall. Highlights the role of traditional Chinese weapons and military power in defeating global threats and protecting humanity. Features gunpowder and compasses prominently as critical inventions.
2017	Kong: Skull Island	Features Jing Tian, a Chinese man, as a competent and positive character. The movie emphasizes dreamy landscapes that highlight the beauty of China's great outdoors.
	King Arthur: Legend of the Sword	Arthur's martial arts teacher, a Chinese man named 'George', trains him in combat and later joins the Knights of the Round Table. When Arthur comes of age, he is portrayed as surpassing George in status.
2018	Pacific Rim: Uprising	A Chinese company is shown mass-producing the 'Jaeger', a giant combat machine. Includes a scene of an American character being scalped by a Chinese chairman and a Chinese ranger unit leader making an epic sacrificial death.
	Mission Impossible- Fallout	A Chinese agent is portrayed as strong enough to simultaneously knock out two highly skilled agents, including 'Ethan Hunt' (Tom Cruise) and 'August Walker' (Henry Cavill), in a martial arts scene that has no relevance to the plot.
	Black Panther	Depicts secret technological cooperation between Wakanda and China, positioning China as a global technological and economic powerhouse.
2019	*Midway	Includes a scene where Lt. Col. Doolittle crash-lands in China after an air raid on Tokyo. As he enters a Chinese village, Japanese warplanes bomb it, causing civilian casualties. The scene is lengthy despite its limited relevance to the larger story arc.
2023	*The Meg2: The Trench (Megalodon)	Shows sailors dumping nuclear waste into the ocean during a mission. This scene serves as a critique of Japan's discharge of Fukushima nuclear waste into the sea, aligning with the timing of the film's release.

* Content Incorporating Subliminal Priming to Disparage Specific Countries

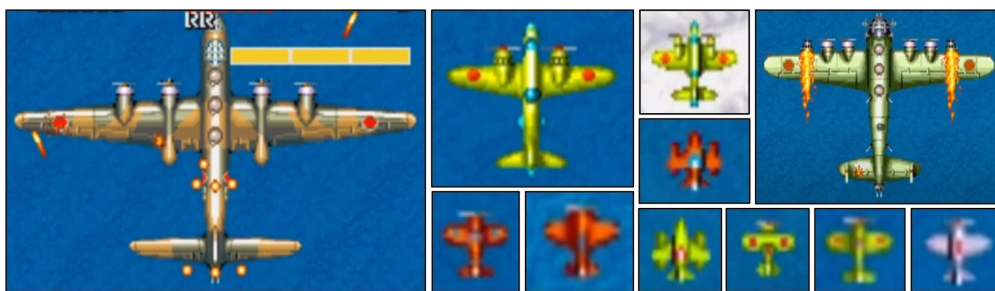
4. Subliminal Priming in the Shooting Game 1942 Series

Subliminal priming techniques are employed across various digital mediums such as video, advertising, animation, and notably, digital video games. Among these, video games provide a uniquely immersive environment that is particularly conducive to implementing subliminal priming. Players actively engage with the game, identify with their in-game avatars, and become deeply immersed in the virtual world. This deep level of immersion enhances the persuasive effects of subliminal priming, which makes video games an optimal medium for these techniques [22][23].

In shooter games, players focus intensely on identifying and eliminating targets, which provides opportunities for subliminal advertising. Simple advertising images, brand logos, or other promotional elements can be strategically embedded on in-game targets or environments. These subliminal cues often go unnoticed by the player's conscious mind but gradually influence their subconscious through repeated exposure [4].

For example, ads, logos, or images subtly integrated into the game's background, objects, or seemingly inconspicuous elements are not processed as direct stimuli. However, through consistent and repetitive exposure, they become familiar to the player's subconscious. This phenomenon aligns with the 'mere exposure effect', which suggests that repeated exposure to a stimulus fosters increased familiarity, leading to greater liking and preference for the object over time [22].

In the 1942 series of shooting games, players encounter large fleets of Japanese fighter squadrons, bombers, and massive Japanese warships midway through each stage. These enemy units, which often occupy more than half of the screen, are prominently marked with a red circle—a symbol representing the Japanese flag, as depicted in [Fig. 3]. This visual element serves as a subtle but effective form of subliminal priming integrated into the gameplay experience.



[Fig. 3] Red Circle Markings Displayed on Enemy Units Occupying the Entire Screen(some with blue circles)

The recurring presence of these large enemy units adorned with red circles reinforces their association with the Japanese military's formidable size and power. As players progress through the game, the frequent and overwhelming appearance of these symbols increases the likelihood of subconsciously inducing a sense of intimidation or awe toward the depicted adversaries. This subliminal effect highlights how visual elements in video games can influence player perception beyond the immediate context of gameplay. As players advance to the later stages of the game, they encounter progressively tougher challenges, culminating in an overwhelming barrage of Japanese planes and warships. This intense gaming experience has the potential to evoke a subliminal priming effect, wherein the repetitive exposure to the red circle symbolizing the Japanese flag elicits emotional responses such as fear, awe, or even admiration. Notably, These emotional reactions can persist subconsciously and continue to influence the player's perception of such symbols long after the gameplay ends.

5. Conclusion

This study explored how subliminal priming elements are embedded and utilized in various forms of cultural content, such as games, films, comics, and animation, while also analyzing their effects. Subliminal priming has been shown to influence future behaviors, preferences, and favorability by associating specific perceptions and messages with long-term memory. Moreover, it has the potential to transfer these influences to other subjects with similar characteristics. Leveraging this mechanism, countries such as the United States, Japan, and China have adopted strategies to enhance their national image and soft power through cultural content.

Subliminal priming is often applied in a subtle manner, which makes it difficult to identify or correct malicious cases. Therefore, future research needs to focus on distinguishing harmful uses of subliminal priming through surveys and experimental validation using paired sample t-tests, while establishing criteria and theoretical frameworks for its positive application. Such research could contribute to maximizing the industrial and strategic benefits of cultural content while providing practical ways to increase national soft power.

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