

國立清華大學 105 學年度碩士班考試入學試題

系所班組別：國際專業管理碩士班 (IMBA)

考試科目 (代碼)：英文 (4702)

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*請在【答案卷、卡】作答

Please read the following two passages, and answer the questions that follow each of the passages. Please answer the questions in your own words. Don't copy sentences from the reading passages.

PASSAGE I

IMMIGRATION: THE MYTH OF THE MELTING POT

BY JULIA HIGGINS (Taken from *Newsweek*, 2015-12-26)

In 1908, British writer Israel Zangwill wrote a stage play, the title of which popularized a term that came to be used as a metaphor for America itself: The Melting Pot.

Debating before U.S. audiences in 1909, Zangwill's play told the story of David Quixano, a fictional Russian-Jewish immigrant who is intent on moving to the United States after his family dies in a violent anti-Semitic riot in Russia.

For Quixano (and many actual immigrants at the time), America, in all of its culturally "blended" glory, stood as a beacon of light visible from the darkest and most oppressed corners of the world, offering promise, possibility and maybe even acceptance.

The arrival of these immigrants, and with them their varied cultural backgrounds, was essential in molding America's public identity. And it fed into America's self-history, enshrining the United States as a refuge for all those suffering persecution for political or personal beliefs; a shelter that accepts a wide variety of faiths and ideologies.

This widely publicized version of America as a wholly inclusive land was not in touch with reality, with a widespread desire to strip immigrants of their individual customs—and force them into a version of whiteness that permeates society—lurking right beneath the surface. There is a rich American tradition of rejecting immigrants and refugees, and those who do make it through often face calls to assimilate and deny their cultural roots.

Many immigrants—especially those with Italian and Irish roots—were plainly seen as inferior and depicted as ape-like in the media of that era. For these immigrants, gaining acceptance often required them to ostracize the next wave of immigrants; you became white by opposing those who weren't.

This dynamic contributed to the demonization of Asian immigrants in the 1870s and 1880s. The Page Act of 1875 specifically targeted Asian laborers, convicts and prostitutes by denying them entry to the United States, though its primary mission was to make immigration harder for all Asians. The Chinese Exclusion Act followed in 1882 and effectively banned Chinese

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immigrants from entry into the United States.

Despite these new laws and bouts of anti-immigrant fervor, foreigners continued to flock to America. The third major wave of immigration in the United States occurred around the turn of the 20th century and brought with it immigrants from previously unrepresented regions (Eastern Europe and Russia, among others). The cycle—immigrate and then turn against those who come after—began anew, and a new assimilation movement arose.

The government and the public encouraged newly minted American citizens to absorb a new culture almost immediately upon arrival, a process dubbed “Americanization.” In an often quoted passage, President Teddy Roosevelt called for assimilation, saying, “We have room for but one language here [in America], and that is the English language.”

Citizenship programs were established across the country, and free English lessons were available in most major cities and towns. The Ford Motor Co., among other major businesses, kept immigrant laborers after working hours for mandatory courses to teach them English and instill American values. The Young Men’s Christian Association offered classes that taught immigrants the “American way,” educating them on American hobbies, hygiene practices, family life and more.

Zangwill’s play debuted just as the Americanization movement took off, receiving mixed reviews from both the public and critics. In his article “How the Melting Pot Stirred America,” author Joe Kraus notes that fans of the play saw it as a “powerful articulation of the promise of America.”

Those who disliked the production, however, saw it as a representation of the mounting cultural hierarchy in America. “The Melting Pot, which celebrated America’s capacity to accommodate difference,” writes Kraus, “appeared on the scene at a moment when the American theater world ceased to accept heterogeneity in its productions and, more subtly, ceased to accommodate difference in its audience.”

Thus, The Melting Pot, for all of its insistence that America was a joyful marriage of diverse cultures, actually symbolized the end of cultural acceptance in the United States.

Despite its shortcomings, the great melting pot was the face of America for decades after Zangwill’s play. In the mid-20th century, however, the melting pot concept began receiving more critical examination, just as a fourth wave of immigration crested in the United States.

Unlike the episodes of major immigration that came before it, the fourth wave consisted predominantly of Spanish-speaking immigrants from Central and South America. Like many of their predecessors, they were met with distrust and dislike by the American public. Though many tried to assimilate into American daily life, they were seen as cultural and economic threats. Nonetheless, aspects of Hispanic culture leaked into American life.

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With so many ethnic groups a part of 20th-century America, calls for assimilation began to see opposition in the form of multiculturalism, a school of thought that stresses the importance of recognizing individual ethnicities. It's in direct contrast to the concept of a melting pot and has earned catchphrase metaphors of its own, like "salad bowl" and "cultural mosaic." With the introduction of this ideology, Zangwill's grand melting pot theory was aggressively called into question.

Even now, multiculturalism is but one of the terms used in an ongoing debate of how best to describe America's diverse and growing population. Though Zangwill's play advocated for America as the great equalizer, the melting pot was no more than a myth, albeit one cherished by many Americans.

Questions:

- 1 According to the author, why is the popular saying "America is a melting pot" a myth? (20%)
- 2 According to the article, how does the concept of "multiculturalism" differ from "melting pot"? (10%)
- 3 In recent years, more and more foreigners come to Taiwan to work or to live through marriage. In your opinion, how does the growing foreign population impact Taiwan society? In your essay, you should include introductory and concluding paragraphs as well as some body paragraphs. Answer this question with 250-300 words. (30%)

PASSAGE II

CAN DESIGNER BABIES BE MADE SMARTER?

By A. CECILE J.W. JANSSENS (Taken from *Newsweek* 2015-12-06)

This week, scientists gathered in Washington, D.C., for the International Summit on Human Gene Editing to discuss a technology called CRISPR-CAS9, which can insert, remove and change the DNA of basically any organism. It is relatively simple, inexpensive and accurate, and it's already being used in laboratories around the world to make cells and breed laboratory animals with modified DNA for the study of diseases.

CRISPR could also be used to modify DNA in human embryos, but the question is whether this should be allowed. Among the concerns scientists and bioethicists have highlighted are heritable gene modifications and the use of this technology to create "designer babies." CRISPR provides new opportunities for disease treatment and prevention, but with unknown

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and potentially substantial risks that warrant an ethical discussion. And this discussion should be rooted in an understanding of what can and cannot be meaningfully edited.

I study the genetic prediction of complex diseases and traits. Research in my field has consistently shown that human traits and common diseases are not genetic enough to be predicted using DNA tests. For the same reasons, it will be impossible to successfully program the presence of traits in embryos.

Any concerns that CRISPR could take a step further to enhance babies by selecting favorable traits such as intelligence and athleticism may be unwarranted.

What can be edited?

The first (and failed) experiment of human embryo editing aimed to repair a single gene mutation for beta-thalassemia, a severe blood disorder. Other diseases mentioned as future targets for gene editing, such as sickle cell disease and Duchenne muscular dystrophy, are caused by single gene mutations.

These diseases are—at least hypothetically—easier to fix because the cause is entirely genetic and simple. For these diseases, research using CRISPR may lead to breakthrough discoveries for therapies and, potentially, for prevention.

But genetic editing of embryos for single-gene disorders also warrants caution. Not only could off-target cuts—unintended edits in the wrong places of the DNA—introduce heritable errors, but mutations may have so-called antagonistic pleiotropic effects.

This means that the expression of the gene increases the risk of one disease while decreasing the risk of another. Take beta-thalassemia or sickle cell disease, for example: Carrying two mutated copies leads to severe illness, but carrying one mutated copy reduces the risk of fatal malaria.

Why traits cannot be designed in embryos

For a trait to be “programmed” with gene editing, it needs to meet two criteria.

First, the traits must be predominantly determined by DNA, which means that their heritability needs to be close to 100%. The lower the heritability, the more nongenetic factors such as lifestyle, education and stress play a role. The less likely the trait can be genetically programmed.

Parents who wish to enhance their offspring may be particularly risk-averse when it comes to the unknown adverse consequences of genome editing. That means that the heritability of favorable traits may need to be very close to 100%.

But a recent review, summarizing 50 years of heritability research, showed that only a few

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traits and diseases had an estimated heritability higher than 90%. Intelligence and higher-level cognitive function were around 50%, muscle power at 70% and temperament and personality at around 45%.

Second, the “genetic architecture” must be straightforward. Traits must be caused by a single mutation, like beta-thalassemia, or by an interaction between a limited number of mutations. It may technically become possible to edit DNA accurately at multiple places in the near future. But we still won’t know what exactly needs to be edited to program a trait when tens or hundreds of gene variants are involved.

Gene editing for favorable traits is not just a matter of tweaking the genes in the right direction. What makes people intelligent, for instance, isn’t a combination of the “right genes” and the “right environment,” but the “right combination” of genes and environment. Since the future environment of the embryo is unknown at the moment of editing, it will be impossible to know what the right genes need to be.

This is why the traits people might want to enhance can’t be programmed in the embryo, not even with the most accurate and reliable version of CRISPR. The technology is not the limitation for enhancing babies—nature is.

Despite the successes in gene discovery of the past 10 years, our knowledge of the combined contribution of all genetic variants is too limited for embryo editing. Even when all genes and their complex interactions are completely understood, our ability to use gene editing for favorable traits will remain limited because human traits are just not genetic enough.

Gene editing technology warrants further study and refinement, which should be accompanied by evaluations of potential adverse consequences. But progress should not be hindered by an ethical debate about a potential misuse of the technology that will not be possible.

Polygenic diseases and traits are simultaneously too complex genetically and not genetic enough. This limits the opportunities for disease prediction, and will also prevent the genetic enhancement of babies.

Questions:

- 1 According to the author, why isn’t CRISPR yet good enough to produce a perfect baby with all the desired traits (such as intelligence, personality, etc.) that parents want? (10%)
- 2 Write an essay with 250-300 words on whether you approve or disapprove the use of genetic technology to create a perfect baby. In your essay, you should include introductory and concluding paragraphs as well as some body paragraphs. (30%)