I 次の文章を読み，設問(1)～(3)に答えなさい。 (50 点)

Users of Sanskrit, Latin, Greek, Hebrew, Arabic, Persian, Mandarin, English, and the like have continually proclaimed their languages holier, more perfect, or more adaptive than the unwritten, unstandardized "dialects" they look down on. But from a linguistic point of view, no language as used by a native speaker is in any way inferior, let alone broken.

Perceptions of linguistic superiority or inferiority are not based on anything about the languages themselves, but on the power, class, or status of the speakers. Every language signed or spoken natively is a fully equipped system for handling the core communicative demands of daily life, able to coin or borrow words as needed. "Languages differ essentially in what they must convey and not in what they may convey," said the linguist and polyglot Jakobson. In other words: (a) it's possible to say anything in any language, but each language's grammar *requires* speakers to mark out certain parts of reality and not others, however unconsciously.

All languages may be communicatively and cognitively equal, but much harder to bridge are the social and historical disparities among their speakers, which have become almost unfathomably large. At present, around half of all languages are spoken by communities of ten thousand or fewer, and hundreds have just ten speakers or fewer. On every continent, the median number of speakers for a language is below one thousand, and in Australia this figure goes as low as eighty-seven.

(b) Today these numbers reflect serious endangerment, and even languages with hundreds of thousands or a few million speakers can be considered vulnerable. In the past, however, small language communities could be quite stable, especially hunter-gatherer groups which typically comprised fewer than a thousand people.

In general, sheer speaker or signer numbers have always mattered less than intergenerational transmission. As long as parents, grandparents, and

other caregivers were using it with children, and those children ultimately used it with their children, a small language could apparently remain strong for centuries.

But why does linguistic diversity matter in the first place?

For profoundly practical reasons — because children learn best in their mother tongue, and beyond education there are a whole host of positive effects on physical and mental health whenever native languages remain strong.

For all the knowledge, wisdom, and art contained in every single language, which the dominant-language canons almost always overlook and no amount of last-minute translation can salvage.

For our understanding of human expression and communication in general, as the least-known languages are often the ones that prove a certain sound or feature or meaning is even possible.

For the sake of justice — because the powerful, by conquest or commerce or culture or creed, are always actively suppressing, stamping out, and stigmatizing the languages of the powerless. Languages today are not "dying natural deaths" or evolving into new forms the way Latin evolved into Romance. Now more than ever, languages are being hounded out of existence.

(C) Like biodiversity, with which it is clearly linked, linguistic diversity remains strongest today in remote and rugged regions traditionally beyond the reach of empires and nation-states: mountain ranges like the Himalaya and the Caucasus; archipelagoes like Indonesia, Vanuatu, and the Solomons; and zones of refuge like the Amazon, southern Mexico, Papua New Guinea, and parts of West and Central Africa. But these too are under tremendous pressure.

(1) 下線部(a)を和訳しなさい。

(2) 下線部(b)を和訳しなさい。

(3) 下線部(c)を和訳しなさい。

Ⅱ 次の文章を読み，設問(1)～(3)に答えなさい。 (50 点)

The term "Big Bang" was famously coined by one of the Big Bang theory's most stubborn and stalwart opponents, Cambridge astronomer Fred Hoyle, who used it dismissively in a radio broadcast. It doesn't sound grand enough to me, and using the expression creates confusion, suggesting, misleadingly, an explosion, something that goes Bang within space, rather than the creation of space and time themselves. It's hard when you hear "Big Bang" not to imagine something out of a cartoon, a giant expanding cloud of debris with a pulsating red or yellow center. What happened at the beginning of our Universe is weirder, and harder to picture, than that, and yet we seem stuck with the term.

Part of the problem is that "Big Bang" tends to be used to refer to two really quite separate things. To the theoretically inclined, and I think to most people, the Big Bang is the single moment when the history of our Universe began, the great Beginning of all things. It's this sense(a) that's being used when we ask questions like "What came before the Big Bang?" (answer, in brief: "Don't know"), "What caused the Big Bang?" (don't know), "Did the Big Bang happen in a particular place?" (no, all of space was in the same place as the Big Bang, before the Universe started to expand), or "When was the Big Bang?" (13.8 billion years ago). One day we may have a complete(b) theory which explains this first moment and which will tell us whether there have been, or ever will be, other bangs, big or otherwise. It might also go some way to explaining why our particular Universe is the way it is, but at present all we have are some admittedly creative and well-motivated theoretical sketches, suggesting possible routes to it. Such a theory, fully developed, would be the crowning glory of physics, a wonderous tribute to the ingenuity of the scientific mind, but it would also, inevitably, be extremely hard to test.

We cannot run experiments to try and replicate what happened in this most distant epoch. The energies involved in conditions that existed in the Universe just after the Big Bang are immense, far beyond the reach of anything we could dream of matching with a particle accelerator*, even if we built one the size of the Solar System. Testing any theory of the early Universe will need to rely on the observations we can make, but we have no way of looking directly back to the beginning. The moment of creation itself is inaccessible to us.

(c) What we can do is make observations that tell us about the very early stages of the Universe's evolution, the first pages of its story. It turns out we can say something sensible about conditions then, and so when observers like me talk about the Big Bang theory, we tend to mean not so much the single moment of beginning but the general and testable idea that, whatever started the thing rolling in the first place, the Universe began its life in a hot, dense state and has been expanding ever since. We can examine this idea by looking at what we can see in the Universe around us, and in fact we have a growing body of evidence that it really is how the Universe's story starts. By thinking hard about the Universe's beginnings, theory and observation can be combined to bolster that first sense of a Big Bang — the counterintuitive idea that there actually was a moment when things started.

*particle accelerator：粒子加速器

(1) 下線部(a) this sense が指す内容について，30 字～50 字の日本語で説明しなさい(句読点を含む)。

(2) 下線部(b)を和訳しなさい。

(3) 下線部(c)を和訳しなさい。

Ⅲ　次の文章を英訳しなさい。　(25 点)

人間の心と顔の表情の関係は，一般的なイメージ以上に込み入っている。顔は心を映す鏡だと言われるが，「ポーカーフェイス」という言葉もあるように，いつもそうであるとは限らない。実際，顔の表情を変えることが心を動かすこともあると示唆する研究もある。もしそうならば，口角を少し上げるだけで，前向きな気持ちになれるかもしれない。

Ⅳ 「人間の想像力は人工知能の普及によって豊かになる」あるいは「人間の想像力は人工知能の普及によって乏しくなる」のどちらかの主張を選択し，その主張を論証する英文を書きなさい。なお，解答に際しては，以下の１～３の条件をまもること。 (25 点)

1. 英文には，選択した主張を提示する文，理由や例などを述べて主張の妥当性を論証する文，それまでの主張と論証を総括する文を必ず含めること。
2. 語数は 80 語以上 100 語以内とすること。
3. 解答欄の各下線部分の上に単語１語を記入すること。カンマ(，)等の記号は，その直前の語と同じ下線に含めることとし，１語と数えない。短縮形(例：don't)は１語と数える。

問題は，このページで終わりである。