

Multilingual Minds in Language acquisition : Exploring Languages' Influence on Thought Patterns in Chinese International Students in Japan

This paper delves into the interactions between language and cognition to raise awareness of multilingualism. The Sapir-Whorf hypothesis posits that languages have profound impacts on people's perceptions. A broad range of previous research has demonstrated that language can influence an individual's thinking patterns in various ways and how learning new languages leads to new perspectives (Bialystok, et al., 2012; Boroditsky, 2001; Pavlenko, 2014). However, to date, despite the multilingual turn in applied linguistics research (May, 2014), studies in Japan have tended to focus on learning L2 English without considering the impact of other languages on learners' identities. To address this gap, this study asked the following research question: "To what extent do multilingual L1 Chinese speakers in Japan change their emotional behaviors when responding to moral dilemmas in Chinese, English and Japanese?" The presenter investigated this problem by providing two Chinese participants with three moral dilemma situational cues in English, Japanese, and Chinese (Greene et al., 2001), followed by stimulated recall interviews (Dempsey, 2010) to explore how language selection influenced their emotions. Through this process, the study aims to identify trends and patterns in the use of each language and to uncover potential issues. Based on the results of data analysis, the study seeks to clarify the interrelationship between language use and thought processes, providing valuable insights for multilingual learners. Furthermore, by implementing language learning practices from this perspective, the experience of multilingual learners and international students can go beyond mere language acquisition.

Methodology- Multilingual Moral Dilemma Questionnaire

It is to examine whether language affects the following psychological aspects. The intensity and type of emotional reactions (e.g., guilt, anger, calmness). The reasoning frameworks applied (e.g., utilitarian vs. deontological). The final decisions are made in morally challenging scenarios. This research is based on the premise that language can shape cognition, a concept supported by theories in linguistic relativity (Boroditsky, 2011) and moral psychology (Greene, 2001). Here is the whole question list:

1. Chinese part.

- C1. 你的孩子与另一个孩子溺水，你只能救一个。另一个孩子是你朋友的独生子。你会救谁？
- C2. 你母亲因重大违法行为即将被捕，如果你提供证据，她会入狱；如果你隐瞒，她将继续伤害他人。你会告发你的母亲吗？
- C3. 你发现你的恋人得了绝症，他请求你隐瞒病情不告诉他家人。你会遵从他的意愿吗？
- C4. 你是医生，5个病人等着器官移植，只有杀死一个植物人病人才有器官救其他人。你杀了会那个植物人吗？
- C5. 你孩子因霸凌他人导致另一位学生自杀。如果你举报他，他会被送去监狱。你会举报你孩子吗？
- C6. 你知道你公司向外国输出有害产品，如果举报，公司数百人会失业。你会揭发吗？
- C7. 你在灾难现场，只能救你的母亲或一个素未谋面的孕妇。你选择救你的母亲吗？
- C8. 全球爆发了病毒，但是你的体内有独特的抗体。为了解救全世界的人，你愿意牺牲自己？
- C9. 你能通过撒谎让一位癌症晚期病人保持对生命的希望，但这谎言一旦被揭穿，可能病人就会绝望自杀。你会说谎吗？

C10. 你能帮助无辜的人逃脱惩罚，但会暴露你自己犯法的事实，你会坦诚自己的犯罪吗？

Translated Question	Category
1. Your child and another child are drowning. You can only save one. The other is your friend's only child. Who will you save?	Selfish for family vs Selfless for others
2. Your mother is about to be arrested for a serious crime. If you give evidence, she goes to jail. If you stay silent, she will continue to hurt others. Will you report your mother?	Selfish for family vs Selfless for others
3. Your partner is diagnosed with a terminal illness. He asks you not to tell his family. Will you respect his wish?	Truth vs. lie
4. You're a doctor. Five patients need organs. You can save them by killing a vegetative patient. Will you kill that vegetative patient?	Utilitarianism vs. Humanitarianism
5. Your child bullied a student who later committed suicide. If you report it, your child will go to jail. What will you do?	Selfish for family vs Selfless for others
6. You discover your company is exporting harmful products. Reporting it could cause hundreds to lose jobs. Will you report it?	Utilitarianism vs. Humanitarianism
7. In a disaster, you can only save your mother or a pregnant stranger. Will you save your mother?	Selfish for family vs Selfless for others
8. There's a global virus outbreak, and only you have a unique antibody against the virus. To save people all over the world, will you sacrifice?	Survival vs. Sacrifice
9. You could lie to give hope to a terminal cancer patient. But if the lie is exposed, they may lose all hope and commit suicide. Will you lie?	Truth vs. lie
10. You can help an innocent person escape punishment, but doing so will reveal your own crime. Will you confess?	Survival vs. Sacrifice

2. Japanese part

- J1. あなたが不正をすれば、世界が平和になります。平和のために不正を選びますか？
- J2. あなたの嘘ひとつで、大切な人は救われますが、同時に他の無関係な人が傷つきます。嘘をつきますか？
- J3. 本当のことを話せば患者は治りますが、自殺する可能性もあります。話しますか？
- J4. 偽のニュースを流せば、地球温暖化が止まります。流しますか？
- J5. 英雄になり、世界の人を救いますが、代わりに家族の命が失います。英雄になりますか？
- J6. ある人種差別の話題で映画を制作すれば、たくさんのお金を得ることができます。そのお金は全て寄付さ、多くの人を助けます。制作しますか？
- J7. あなたは避難所に入るために「妊婦」と偽れば、命が助かりますが、代わりに一人本当の妊婦が死にます。偽りますか？
- J8. 社会の不正を告発すれば全ての人を幸せになるが、あなたの存在そのものが抹消されます。告発しますか？
- J9. 地震で「この1人を犠牲にすれば5人が救える」と言いますが、この1人を犠牲させますか？
- J10. あなたは今回5回目で夢の大学をチャレンジし、まだ失敗かもしれないが、もし不正な手段を使えば、合格できます。使いますか？

Translated	Category
1. If committing injustice would bring world peace, would you do it?	Survival vs. Sacrifice
2. If you tell a lie, it could save someone you love. But it would hurt innocent people. Will you lie?	Selfish for family vs Selfless for others

3. Telling the truth will cure a patient but may also cause them to commit suicide. Will you tell the truth?	Truth vs. lie
4. Spreading fake news could stop global warming. Will you do it?	Truth vs. lie
5. You can save the world and become a hero, but your family will die. Would you become a hero?	Selfish for family vs Selfless for others
6. If you produce a film on a racist topic, you will get a lot of money. All the money will be donated to help many people. Will you produce?	Utilitarianism vs. Humanitarianism
7. You could lie and pretend to be pregnant to enter a shelter and survive, but a real pregnant woman would die. Would you lie?	Survival vs. Sacrifice
8. Exposing social injustice would bring happiness to all, but you will disappear from this world. Will you expose it?	Survival vs. Sacrifice
9. A disaster forces a choice: one person must die to save five. Will you sacrifice that person?	Utilitarianism vs. Humanitarianism
10. You are challenging your dream college for the fifth time and still may fail, but if you cheat, you will go to that college. Will you cheat?	Truth vs. lie

3 . English Part

Question	Category
E1. You are a doctor with one dose of medicine. A child and a famous scientist who will save more people both need it. Who will you save?	Utilitarianism vs. Humanitarianism
E2. A self-driving car must choose: hit a pedestrian or swerve and kill you. You can't stop it. Do you accept being saved?	Survival vs. Sacrifice
E3. A terrorist says they will tell you the bomb's location only if you torture someone. Will you do it to save others?	Utilitarianism vs. Humanitarianism
E4. You find out your professor copied someone else's work. Telling the truth might hurt both of you. Will you report it?	Truth vs. White lie
E5. A criminal is badly hurt. You're the only doctor nearby. Helping him might let him escape. Will you treat him?	Utilitarianism vs. Humanitarianism
E6. In a disaster, you control food supplies. A local leader asks you to give extra food to "important people." Obeying means many other innocent people will starve. Disobeying means you will starve and die. Will you obey?	Survival vs. Sacrifice
E7. You have research that might save lives. But it's not fully tested. Sharing it too soon could cause harm. Will you publish now?	Truth vs. White lie
E8. Your child caused a fatal hit-and-run accident. If they confess, they may go to prison. Will you tell them to go to the police?	Selfish for family vs Selfless for others
E9. You see a viral post that could ruin someone's life. It is only half true. Will you share it to "raise awareness"?	Truth vs. White lie
E10. Your child is very sick. A doctor might have a 50% chance to save your child, but this doctor has a 100% chance to save other people. Will you choose to save your child?	Selfish for family vs Selfless for others

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