

EFFECTS OF METAPHORS ON THINKING: THE CASE OF THE DRUG ADDICTION PROBLEM IN THAI SOCIETY

Nuntana Wongthai

Faculty of Humanities, Srinakharinwirot University, Thailand

ABSTRACT

Corresponding author:

Nuntana Wongthai
nuntanaw@g.swu.ac.th

Received: 4 December 2025

Revised: 19 March 2026

Accepted: 19 March 2026

Published: 20 April 2026

Citation:

Wongthai, N. (2026). *Effects of metaphors on thinking: The case of the drug addiction problem in Thai society*. *Humanities, Arts and Social Sciences Studies*, 26(1), 232–242.
<https://doi.org/10.69598/hasss.26.1.282849>

This study investigates how metaphorical framing shapes public reasoning about drug addiction in Thai society. Specifically, it examines how presenting drug users as criminals versus patients influences perceptions of responsibility and preferred solutions. The research objectives are 1) to assess the impact of different metaphors related to the debate on the elimination of drug problems in Thai society, and; 2) to elucidate the degree of conscious awareness of the use of metaphors in this debate. Data were collected from two questionnaires administered to 384 Thai participants aged 18–24. Each questionnaire consisted of three parts: general information; a passage about drug consisting of metaphors ‘drug users as criminals’ or ‘drug users as patients’; and open-ended questions on opinions about drug problems. The findings reveal that the “criminal” frame elicited stronger support for law enforcement measures, while the “patient” frame promoted healthcare-oriented responses. These results highlight the subtle yet powerful effects of metaphorical framing, even when participants are not consciously aware of its influence. This study underscores context sensitivity and cultural resistance, which lend support to Kövecses’s (2020) cultural extensions of Conceptual Metaphor Theory (CMT) and suggesting dynamic mappings between the conceptual domains of criminals and patients. By demonstrating how figurative language directs social attitudes and proposed policies, this research contributes to understanding the role of metaphor in shaping public discourse and advancing social equity, while offering insights relevant to health communication and social policy debates.

Keywords: Criminal vs. patient frames; drug addiction; effects of metaphor; social equity; Thai society

1. INTRODUCTION

Drug-related issues have been a distressing crisis in Thailand for decades. Historical attempts to deal with this issue and to resolve problems caused by drugs can be traced back to 1958, when the military junta under Prime Minister Sarit Thanarat announced Revolution Council no. 37 on the complete prohibition of the sale and consumption of opium throughout the Kingdom of Thailand. Another notable event was the launch of “war on drugs” policy by Prime Minister Thaksin Shinawatra’s in 2003, which had the objective of curtailing the supply of and demand for illicit drugs (Likitdecharoj, 2025).

According to UNAIDS (2023), the inaugural three months of the policy's enforcement saw nearly three thousand deaths attributed to police activity, attribute to police activity. Recently, on January 30, 2025, the Thai government launched its "Seal Stop Safe" campaign to drive anti-drug operations and control the drug problem in 51 border districts in 14 provinces throughout Thailand. The name of the campaign stresses the importance of sealing the country's borders, suppressing drug use, stopping the drug trafficking cycle, and ensuring that border areas are free from the threat of drugs (The Government Public Relations Department, 2025). Within the framework of international cooperation, Thailand maintains its standing as a committed UN member state in actively prevention and mitigation of, drug-related issues with global solidarity initiatives. State-led activities and publications were consistently employed to raise awareness within Thai society regarding the dangers of drugs.

The "war on drugs" policy mentioned above serve as a quintessential example of a conceptual metaphor. Metaphors are prevalent in our everyday language use. We frequently use linguistic expressions from one domain to refer to another domain. However, the metaphor should not be regarded as a literary device. According to Lakoff and Johnson (1980), metaphors also relate to human cognition. From the example of PM Shinawatra's initiative", 'drug' is conceptualized as a hostile opponent within the domain of 'war,' as being mapped in the 'Fight against drugs' slogan used by the Thai government, which Thai people are familiar with.

The domain of war in the above example is not only used as a source domain to refer to the target domain of drug, as suggested by the Conceptual Metaphor Theory (Lakoff & Johnson, 1980; Kövecses, 2010). It also leads to the suggestion that drug should be perceived collectively as an opponent or an enemy. This framing also implies the existence of a relationship between humans and drugs and inducing to the impression that the former is trying to overcome the latter.

In 2023, the Thai Health Report (Institute for Population and Social Research, Mahidol University, 2023) revealed that one in ten health situations in Thailand was associated with drugs in the community, critical social crises that could be classified into four thematic areas: the health of drug users; the interrelationship between drug users and those who do not use drugs; the economic burden for government in treating drug users in consonance with the provisions of the Drug Addict Rehabilitation Act; and crime resulting from drug use. The Report from the Office of the Narcotics Control Board for the fiscal year 2022 recorded 258,190 cases of drug abuse and 265,728 drug-related convictions (Office of the Narcotics Control Board, 2024).

Thailand is by no means the only country facing severe problems from drug abuse. In 1997, the United Nations established the United Nations Office on Drugs and Crime or UNODC as the UN entity was tasked with addressing and countering global drug problem. During a special session of the United Nations General Assembly responding to this challenge in 2016 (United Nations Office on Drugs and Crime, 2018), member states committed to prevention and treatment as well as the protection and promotion of human rights in order to achieve the Sustainable Development Goals as stated in the following excerpt:

"People with drug use disorders in contact with the criminal justice system are a particularly vulnerable group with specific needs, including treatment. Addressing their needs and vulnerabilities requires strong collaboration between health and justice authorities and, in appropriate cases, a focus on providing treatment as an alternative to conviction or punishment..." (United Nations Office on Drugs and Crime, 2018, p. 17)

The above statement encourages a shift in perceptions towards drug users from that of criminals to that of patients. They should be viewed as vulnerable and in need of care by healthcare professionals. Consistent with Entman's (1993) conceptualization of framing, the narratives associated with drugs has been shifted from the 'making war on drugs,' focused on criminal conviction towards a model emphasizing 'providing treatment as an alternative to punishment.' Under the former frame, drug users need to be convicted. This type of response typically results in inequity and social stigma. Conversely, the latter frame helps promote human rights. People who use drugs have the option of accessing healthcare instead of being sent to prison. This new interpretation was codified for the first time in Thai legislation in the Drug Addict Rehabilitation Act, B.E. 2545 (2002) in Thailand. Such emphasis on the health and wellbeing of drug users was also institutionalized in the Narcotics Bill B.E. 2564 (2021). Nonetheless, segments of Thai public resisted the new framing of 'patients' as drug users. A survey by Nida Poll conducted between October 10–12, 2022 found that 50.15% of respondents strongly disagree with this idea (Paoaree, 2023). This may be attribute to the fact that Thai people perceived drugs as a chronic problem and were aware of the detrimental effects of drugs.

In contemporary context, drug users are predominantly characterized by two competing lenses: being framed as either 'criminals' or 'patients.' These dual viewpoints exemplify the [strategic] use of metaphor:

one entity is used to refer to another. Applying Conceptual Metaphor Theory, the source domains¹ are 'criminals' and 'patients' and the target domain² is drug users. Consistent with Kövecses (2010), this suggests that a conceptual metaphor relates to correspondences or mappings between elements in the source domain and those in the target domain. The mappings between elements of criminals (source domain) and those of drug users (target domain) can be displayed in Figure 1, while the mappings between elements of patients (source domain) and those of drug users (target domain) can be displayed in Figure 2.

DRUG USERS AS CRIMINALS

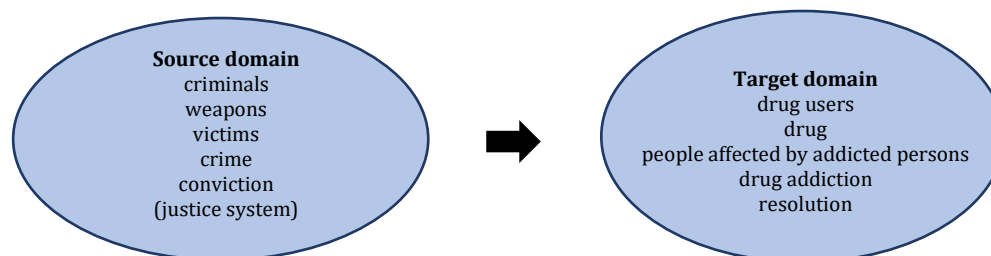


Figure 1: The mappings between elements of criminals as the source domain and those of drug users as the target domain

DRUG USERS AS PATIENTS

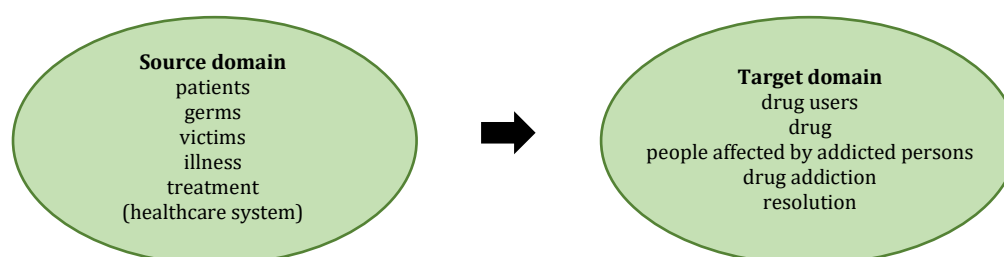


Figure 2: The mappings between elements of patients as the source domain and those of drug users as the target domain

A comparative analysis of these two domains revealed fundamental structural divergences. Differences between elements may result in differences in viewpoints. It is interesting to investigate the framing power of these two metaphors. The results will clarify which organizations the Thai public deems responsible for addressing drug-related issues, what actions they advocate for, and how drug users should be dealt with in order to solve drug problems. According to the results of previous research on framing in metaphor analysis, different metaphors affected different ways of reasoning about things and influenced attitudes and decision-making processes without individuals' awareness of their impact (Chatti, 2022; Chkhaidze et al., 2021; Cotter et al., 2021; Doquin de Saint Preux & Masid Blanco, 2021; Lecheler & de Vreese, 2012; Ottatti et al., 2014; Reijnierse et al., 2015; Thibodeau & Boroditsky, 2011). This raises an interesting question of whether similar results would be found in relation to drugs, an issue in relation to which people tend to have deeply entrenched perceptions and experiences. Thai people have long perceived drug problems as severe and chronic through their exposure to news on various channels and education policies. Drug users have been portrayed as criminals who cause problems in society. Could the adoption of alternative metaphors play a role in reconstructing public reasoning about drugs and drug use, as advocated by the UN. Moreover, the results may point to metaphorical mappings that extend beyond the static configurations proposed by Lakoff and Johnson (1980) and Kövecses (2010). In this respect, drug addiction in the Thai public discourse may be better explained by Kövecses's (2020) cultural extensions of Conceptual Metaphor Theory, which emphasize the role of cultural resistance in shaping patterns of reasoning.

The above question leads to two research objectives: 1) to assess the impact of different metaphors related to the debate on the elimination of drug problems in Thai society, and; 2) to elucidate the degree of the conscious awareness of the use of metaphors in this debate.

¹ Source domains are the conceptual domains from which we draw metaphorical expressions to understand another conceptual domain. (Kövecses, 2010, p. 4)

² Target domains are the conceptual domains that are understood by the source domains. (Kövecses, 2010, p. 4)

2. THEORETICAL FRAMEWORK

2.1 Conceptual metaphor theory

This study explores the effects of metaphors regarding the conceptualization of the drug addiction problem in Thai society. The Conceptual Metaphor Theory (CMT) is one of the theoretical frameworks applied to investigate this phenomenon. George Lakoff and Mark Johnson (1980) revolutionized our understanding of metaphor, proposing that a metaphor is not merely a linguistic flourish but a fundamental mechanism of human thought. Moreover, our ordinary conceptual system is largely metaphorical, deeply influencing how we perceive, think, and act. The principle of the Conceptual Metaphor Theory is that we understand an abstract concept by systematically mapping it onto a concrete concept, which is often derived from physical experience. These systematic mappings from a source domain, which is more concrete, to a target domain, which is more abstract, allow us to structure and reason about complex ideas. For example, IDEAS ARE FOOD uses the concrete experience of eating and nourishing the body to structure the abstract concept of intellectual consumption and mental growth. This profound connection highlights the experiential basis of conceptual metaphors. In this study the concept of drug users is considered as a target domain that is understood according to the source domains of CRIMINALS and PATIENTS.

2.2 Metaphor and framing

To explore how choices of metaphor (criminals or patients) may relate to people's views and opinions on drug users and related organizations dealing with this severe social issue, the notion of framing plays a key role. According to Entman (1993),

To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described. (Entman, 1993, p. 52)

In this study, criminals and patients were used as frames to shape participants' reasoning and decisions on drugs in Thai society.

Many studies adopt the notion of framing to explain how choices of metaphor may relate to people's views and opinions of specific issues under specific contexts. According to this understanding, framing is a process involving the use of language to reflect and facilitate different ways of understanding and reasoning about issues.

Research on metaphorical framing effects reveals that metaphors can subtly influence attitudes and decision-making processes without individuals necessarily recognizing those impact (Thibodeau & Boroditsky, 2011). Furthermore, metaphorical frames, whether expressed through words or concepts, have been shown to positively influence beliefs and attitudes (Brugman et al., 2019), demonstrating their capacity to shape individuals' perceptions and opinions. Thibodeau's work in 2011 demonstrated that metaphorical framing effects can operate subtly, often influencing decisions without individuals being consciously aware of the metaphors at play. This subtlety underscores the potent yet imperceptible impact of metaphor in shaping our cognitive processes (Thibodeau & Boroditsky, 2011, 2015).

As posited by Thibodeau and Boroditsky (2013), metaphors have a unique ability to provide insights or to guide interpretation, thus acting as powerful tools in shaping individual beliefs and perceptions. These effects are not merely relegated to the conscious cognitive domain but often permeate deeper, influencing our subconscious biases and attitudes.

Further examples include studies of the role of linguistic metaphors and their framing effect in shaping how people cope with a cancer diagnosis (Hendricks et al., 2018; Semino et al., 2018). Brugman et al. (2022) also conducted the studies on the framing effect of COVID-19 metaphors. In addition, the way in which refugees were depicted using metaphors as linguistic framing devices in newspapers was analyzed by Fisher (2020). The effects of metaphorical frames in political discourses were also examined by Brugman et al. (2019) in order to show their influences on beliefs and attitudes. Their findings showed that the use of different frames influenced reasoning and shaped the making of individual decisions to deal with specific problems.

Despite the growing body of research on metaphorical framing, it remains unclear whether comparable effects would emerge in relation to drugs, an issue characterized by deeply entrenched perceptions and experiential knowledge that may constrain or resist metaphorical reframing.

2.3 Extensions of conceptual metaphor theory

This study investigates the framing power of two metaphors, "criminals" and "patients." Of particular interest is whether the findings support static mappings between elements of the source domains ("criminals" and "patients") and those of drug users as the target domain, as proposed by Lakoff and Johnson (1980) and Kövecses (2010), or whether they instead point to dynamic mappings, as proposed by Kövecses (2020) in his discussion of cultural extensions within CMT. In his book "Extended Conceptual Metaphor Theory," Kövecses

(2020) argues that metaphor is not only grounded in universal bodily experience but is also profoundly shaped by culture, context, and social experience. From this perspective, metaphorical conceptualization is dynamic and culturally situated, rather than fixed and universal.

Context sensitivity, cultural resistance, and dynamic and emergent mappings are ones of key concept within cultural extensions of Conceptual Metaphor Theory. Kövecses (2020) emphasizes that metaphors are shaped by immediate situational contexts, such as political discourse, media discourse, social crises. Consequently, metaphor use can shift over time, across domains, and according to communicative purposes within the same culture. Moreover, cultures may resist and reinterpret dominant metaphors. This can lead to alternative metaphorical mappings that better align with local moral values, social norms, or historical experiences. These result in dynamic mappings that emerge through ongoing social change.

This conceptual framework may offer a useful lens for explaining and addressing drug-related problems in Thai society, where perceptions relating to drug users have long been shaped by deeply entrenched views criminality. Moreover, the immediate situational context, which is the shift in the framing of drug users from criminals to patients promoted by the United Nations Office on Drugs and Crime (2018) also play a crucial role in shaping Thai people's reasoning on the issue.

3. METHODOLOGY

3.1 Data collection

3.1.1 Instruments

The instruments used in this study were two online questionnaires. Each questionnaire consisted of three parts: 1) general information (age and gender); 2) a passage 1us about drug consisting of metaphors 'drug users as criminals' or 'drug users as patients'; and 3) open-ended questions on opinions about drug problems. The questionnaires were administered in Thai to maximize clarity and mitigate language barrier for the participants. And they were likewise requested to provide their response in Thai. The structure and number of sentences in the two stimuli were identical (seven sentences for each passage), but each was framed by using either criminal or patient metaphors, which were indicated in the last three sentences. No typographical emphasis was applied to the original source texts.

The original Thai version of the passage about drugs using the metaphor 'drug users as criminals' is as follows:

ยาเสพติดคือหนึ่งในปัญหาที่เกิดขึ้นในสังคมไทยอย่างต่อเนื่อง ปัญหายาเสพติดในสังคมไทยมีการขยายตัวไปในทุกสถานที่ และพัฒนารูปแบบใหม่ ๆ ขึ้นอยู่เสมอ ในปี 2566 พบสารเสพติดใหม่เพิ่มขึ้นมากกว่า 10 ชนิด โดยยาเสพติดที่พบที่ใช้เสกกันเป็นจำนวนมาก คือ ยาบ้า ยาไอซ์ เฮโรอีน ผู้เสพยาเสพติดคือผู้ร้าย ก่อเหตุลักขโมยไปจนถึงคดีอาชญากรรม นอกจากนี้ การคุ้มคลั่งและทำร้ายร่างกายผู้อื่น ก็เป็นอันตรายอย่างหนึ่งของยาเสพติด

The translated version of the passage about drugs using the metaphor 'drug users as criminals' is as follows:

"Drugs remain one of the ongoing problems in Thai society. The drug problem in Thai society continues to spread across various areas and evolves into new forms. In 2023, more than 10 new addictive substances were identified. The most commonly used drugs are methamphetamines, crystal meth (ice), and heroin. People who are addicted to drug are criminals. They steal and commit crimes. Moreover, mania and harming of others are also dangers associated with drug use."

The original Thai version of the passage about drugs using the metaphor 'drug users as patients' is as follows:

ยาเสพติดคือหนึ่งในปัญหาที่เกิดขึ้นในสังคมไทยอย่างต่อเนื่อง ปัญหายาเสพติดในสังคมไทยมีการขยายตัวไปในทุกสถานที่ และพัฒนารูปแบบใหม่ ๆ ขึ้นอยู่เสมอ ในปี 2566 พบสารเสพติดใหม่เพิ่มขึ้นมากกว่า 10 ชนิด โดยยาเสพติดที่พบที่ใช้เสกกันเป็นจำนวนมาก คือ ยาบ้า ยาไอซ์ เฮโรอีน ผู้เสพยาเสพติดคือผู้ป่วย ได้รับผลกระทบต่อสุขภาพทั้งทางกายและทางใจ นอกจากนี้ อาการทางจิตประสาท หูแว่ว เห็นภาพหลอนก็เป็นอันตรายอย่างหนึ่งของยาเสพติด

The translated version of the passage about drugs using the metaphor 'drug users as patients' is as follows:

"Drugs remain one of the ongoing problems in Thai society. The drug problem in Thai society continues to spread across various areas and evolves into new forms. In 2023, more than 10 new addictive substances were identified. The most commonly used drugs are methamphetamine, crystal meth (ice), and heroin. People who are addicted to drug are patients. They suffer from both physical and mental health effects. Moreover, psychotic disorders, auditory hallucination, and visual hallucination are also dangers associated with drug use."

After read the passage, participants were asked if they had finished reading in order to confirm that they had read all of the information before moving on to the next part.

In the last part, there are three questions asking for their opinions on drug problems:

Q1: Which institutions or figures do you think are the most important for eliminating the drug problem? (open-ended question)

Q2: How should the addicted be dealt with? (open-ended question)

Q3: Which parts of the above passage that you have read affect your reasons in the previous answers? (Each sentence in the passage was provided as a choice to select. Participants were allowed to/were given an option to choose more than one sentence.)

In order to validate the text and the questions in the questionnaires, an expert review was conducted. Three experts in the fields of Thai language, metaphor, and drug addiction reviewed the passages and questions. The Thai language expert assessed the clarity and readability of the stimuli, ensuring the questions were finely tuned to capture the impact of metaphors on reasoning about drug addiction. The metaphor expert assessed the representativeness of the chosen metaphors used in the passages and the relevance of the questions in probing cognitive impact. The drug addiction expert assessed the accuracy of the content in the passages.

Pilot testing was conducted in order to assess validity and reliability before the experiment. A small group of 20 participants with the same age range as the participants in the study (18–24 years) was asked to complete the questionnaires and interviewed about the clarity of the passages and questions and the likelihood of misunderstandings.

3.1.2 Participants

The study sample in this study comprised 384 Thai people, aged 18–24 years. This sample size was determined based on Roscoe (1989)'s guideline for instances where exact population parameters were unavailable. The selection of such specific demographic is justified according to the findings from the Thai Health Report (Institute for Population and Social Research, Mahidol University, 2023) which identifies the 18–24 age group with the highest prevalence of drug use in Thailand.

Participants were divided into two groups, with 192 participants per each group. All participants were undergraduate students enrolled in different bachelor's degree programs. They were recruited from four regions of Thailand. Specifically, 25% of the participants were from the Central region, 25% from the Northern region, 25% from the North-Eastern region, and the remaining 25% from the Southern region. Recruitment was conducted through university instructors in each region, who introduced the study to potentially interested students. The researcher subsequently conducted online sessions to clarify the objectives of the study, outline the research procedures, and to obtain voluntary informed consent.

The research was approved by the Research Ethics Division, Srinakharinwirot University.

3.2 Data analysis

Qualitative responses from Part 3 (open-ended questions on opinions towards drug problems) were analyzed through keyword analysis in order to segmented the information into three key themes: (1) the institutions which Thai people considered to be the most important for eliminating the drug problem in society; (2) the expected interventions they thought these bodies should take, and how they thought drug users should be dealt with in order to solve the drug problem. The frequency of answers was also calculated and used to compare differences between the two metaphors on drugs. Investigator triangulation was also employed throughout the data analysis process. The findings and interpretations of the findings were reviewed with two Thai language specialists in order to gain multifaceted perspectives for the interpretation and coding of the findings. Interrater reliability was evaluated using Cohen's kappa, yielding a perfect agreement between the two codes across all categories ($\kappa = 1.00$).

Applying the notion of framing in metaphor, it was hypothesized that participants who had read the passage referring to 'drug users as criminals' would mention the police or the Office of Prevention and Protection of Drugs in the responses to Q1 as institutions or figures which were responsible for solving the problems. It was also predicted that in their responses to Q2, they would argue that drug users should be subjected to legal arrest and imprisonment. By contrast, participants who had read the passage referring 'drug users as patients' the passage referring 'drug users as patients' were predicted to mention doctors or healthcare professionals as agencies or figures in their answers to Question 1, and argue that drug users should be cured and rehabbed, responding to Q2. Regarding Q3, which identified the sentences that affected their reasoning in the previous questions, participants in both groups were expected to select non-metaphorical sentences. Such selection would serve to validate the implicit potency of metaphorical framing that shapes their reasoning without conscious.

4. RESULTS

The findings related to the open-ended questions were coded into three primary thematic categories. The first category was 'Law Enforcement' where responses encompassed keywords identified as 'police,' 'apprehend,' 'imprison.' The second category represented 'Medical Treatment' where responses characterized by keywords as 'healthcare,' 'cure,' 'treat.' The third category contained miscellaneous answers which did not align with the two dominant themes

4.1 (Q1) The most important institutions or figures for eliminating the drug problems

The frequency distributions of the responses generally align with the projected hypotheses. Table 1 illustrates the frequency of answers concerning the agencies or figures the participants considered to be the most important for eliminating the drug problem in Thai society.

Table 1: The frequency of answers concerning the agencies or figures which are the most important for eliminating the drug problem in Thai society

Agencies or figures	Frequency	
	Drug users as criminals	Drug users as patients
Police	36	28
Healthcare professionals	11	16
Government/governmental agencies	25	25
Nation's leader/local leader	2	5
Family	14	14
Ourselves	4	3
Everyone	8	5
Educational agencies	0	2
Proximal social network	0	1
Stringent legal enforcement	0	1
Total	100	100

For the passage referring to 'drug users as criminals,' 36% of participants perceived 'police' as responses to Q1, while 11% identified doctors or healthcare professionals as their answers. For the passage referring to 'drug users as patients,' only 28% mentioned 'police' in their answers to Q1, yet 16% for 'doctors' or 'healthcare professionals'. Consistent proportions of participants in both groups mentioned government and family in their answers, at 25% and 14% respectively.

4.2 (Q2) Actions to be taken in relation to the addicted

For Q2, which asked about expected interventions that should be taken in relation to the addicted, 35% of responses to those who had read the passage referring 'drug users as criminals' mentioned words such as 'apprehend' and 'imprison,' Meanwhile, only 28% of responses to those who had read the passage referring 'drug users as patients' cited such words in their answers. 46% of responses to those who had read the passage referring 'drug users as criminals' referred to curing in their answers, this figured increased to 61% for those who had read the passage referring 'drug users as patients.' The respective proportions of participants who had read the criminal and patient metaphor recommending educating, warning and making suggestions to the addicted were 15% and 11%, respectively. Moreover, 4% of the participants who had read the passage with the criminal metaphor also suggested physical exercise as an intervention. Table 2 shows the frequency of answers concerning interventions that should be taken in relation to the addicted.

Table 2: The frequency of answers concerning actions that should be taken in relation to the addicted

Actions	Frequency	
	Drug users as criminals	Drug users as patients
Punish, imprison	35	28
Cure	46	61
Educate, warn, suggest	15	11
Physical exercise	4	0
Total	100	100

The findings from Q1 and Q2 suggest an interesting issue. Considering the responses to Q1 references to 'police' demonstrated the highest frequency among those who had read passages using both of the two metaphors. Similarly, among responses to Q2 concerning what actions should be taken in relation to the addicted, comments suggesting that the addicted should be cured were also found in high frequency among participants exposed to both of the two metaphors.

4.3 The conscious detection/awareness towards metaphorical mapping

After taking the answers to the Q3 in Part 3, the responses demonstrated that the participants did not recognize the metaphorical statements being used in the stimulus. Only 8 participants (7.8%) who had read the passage referring to 'drug users as criminals' and 13 participants (13.3%) who had read the passage referring to 'drug users as patients' chose sentences containing metaphors.

From all of the sentences used in the passages, the sentence 'Drugs remain one of the ongoing problems in Thai society,' which was the first sentence of both passages, was the most influential sentence cited by 41.2% of those who had read the first passage and 35.3% of those who had read the patient passage choosing this sentence. The second most-cited sentence was 'The drug problem in Thai society continues to spread across various areas and evolves into new forms,' which was the second sentence in both stimulus passages. The proportion of those having read criminal metaphor and patient metaphor passages followed closely at 40.8% and 34.7% respectively. Significantly, the two most-cited sentences contain no metaphorical framing elements.

5. DISCUSSION

The findings supported the effects of metaphors on reasoning concerning the drug problem in Thai society and the subtle operation of metaphorical framing effects on shaping individuals' perceptions and opinions. The answers to Q1 and Q2, regarding the most important agencies or figures for eliminating the drug problem and the perceived actions to be taken in relation to the addicted, respectively, align with the core tenet of framing theory.

Participants exposed to the 'criminal' metaphor exhibited a high preference for legal enforcement, frequently citing terms as 'police,' 'punish' and 'imprison.' In contrast, the 'patient' metaphor prompted a significant shift towards medical treatment intervention, identifiable by terms such as 'healthcare professionals' and 'cure.' This divergence underscores the power of metaphors in influencing perceived appropriate actions and interventions.

However, several nuances in the dataset require further analysis. The findings also reveal some hypothesized shifts, where 'police' remained a high-frequency answer across both metaphor conditions for Q1, while 'cure' consistently appeared as a high-frequency answer across both conditions for Q2. Notably, this suggests that while metaphorical framing can influence people's reasoning, deeply ingrained socio-cultural constructs or existing frameworks for understanding drugs and drug users in Thai society also show an immediate impact on the formation of people's opinions.

As mentioned earlier, Thailand has a long history of attempts to solve drug-related issues in country, beginning since 1958 onwards. Prohibition of sale and consumption of drugs was enacted by law through the Revolution Council No. 37 under Prime Minister Sarit Thanarat's initiative. Decades later, the country saw the implementation of the "war on drugs" policy in 2003 by Prime Minister Thaksin Shinawatra. Recently, the government likewise launched its "Seal Stop Safe" campaign. These initiatives have constructed the adoption of a punitive approach by successive governments, with the police serving as the primary agency that were tasked with enforcement. Therefore, it is not surprising that 'police' remained a dominant response for both metaphor conditions in Q1.

The consistency of 'cure' as a high-frequency answer for both metaphors for Q2 can be attributed to a recent paradigm shift in drug policy in Thailand. The country has initiated a shift from a purely punitive approach towards rehabilitation and a public health-oriented perspective for people who use drugs, in alignment with UN directives. This ongoing transition explains why both 'police' (historically reflecting legal enforcement legacy) and 'cure' (presenting the current evolving policy shaped by the development of a universal healthcare system) remain prominent in public discourse and reasoning.

The findings may be interpreted through Kövecses' (2020) framework of cultural extensions within CMT. Immediate situational contexts, in this study a recent policy shift towards UN direction for prevention, protection and promotion of human rights of addicted in order to achieve the Sustainable Development Goals, have facilitated the adoption of alternative source domain, which signifies a shift from "criminals" to "patients". The reconceptualization of drug users also influences how Thai people reinterpret the dominant and deeply entrenched metaphor of "drug users as criminals". Context sensitivity and distinct cultural resistance also

advances such alternative dynamic metaphorical mappings which incorporate both the dominant metaphor (drug users as criminals) and the emergent metaphor (drug users as patients). Accordingly, the alternative mappings between elements of source domain to target domain (drug users) can be displayed in Figure 3.

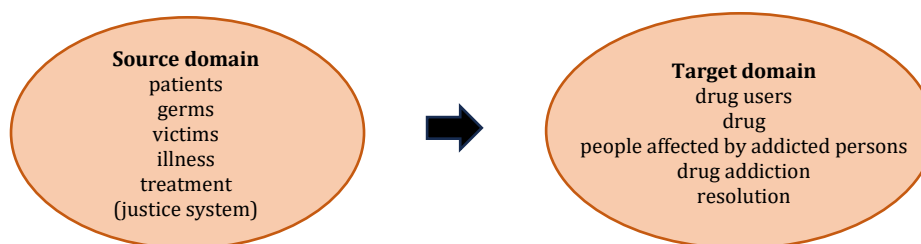


Figure 3: The mappings between elements of source domain to target domain (drug users)

The most compelling and insightful finding pertains to Q3, which explored the extent of participants' explicit recognition regarding the impact of metaphors on their decision-making process. The results indicated a striking lack of explicit awareness. Only a small percentage of participants (7.8% from the 'criminal' group and 13.3% from the 'patient' group) identified sentences containing metaphors as influencing their answers. Instead, the most frequently chosen sentences were those that contained no metaphors at all. This suggests that the impact of metaphors on reasoning is often subtle and operates at a subconscious level. (Thibodeau & Boroditsky, 2011, 2013, 2015) Participants may be influenced by the conceptual frames evoked by the metaphors without consciously recognizing the linguistic elements responsible for that influence.

This finding highlights the insidious nature of metaphorical framing, underscoring its power to shape thought processes implicitly rather than explicitly. These insights carry practical implications, especially for organizations and government bodies addressing drug-related issues in Thailand. The deliberate use of the 'patient' metaphor for drug users can significantly shift public perceptions, recasting individuals struggling with addiction as patients in need of treatment rather than offenders warranting punishment. This reframing aligns with CMT, which posits that cognitive patterns are deeply shaped by metaphorical mappings between domains; altering such mappings can reorient reasoning and behavior.

6. CONCLUSION

In conclusion, this study provides rigorous empirical evidence that metaphorical framing significantly directs how Thai individuals conceptualize and reason about drug addiction, influencing their perceptions of responsible agencies and preferred interventions. While the observed influence is statistically significant, it functions beneath the level of conscious awareness. The sustained high frequency of 'police' and 'cure' across both metaphor groups also hints at underlying societal norms or established understandings of drug problems in Thailand that may interact with, or temper, the direct effects of specific metaphorical frames.

To prevent misunderstanding of the implications of this study, it should be clarified that the study does not intend to advocate for the decriminalization of drug users or perpetrators of drug trafficking. It has been recognized that while some drug users belong to vulnerable groups and may engage only in personal drug consumption, others may simultaneously act as traffickers or ring leaders and be involved in violent criminal activities.

Findings of the study have important implications for public health campaigns, policy communications, and educational initiatives aimed at fostering more effective and humane approaches to addressing the issue of drug addiction in Thai society. Future research could explore the long-term effects of exposure to different metaphors and investigate the specific cultural nuances that may mediate their impact. Moreover, as the present study focuses on participants aged 18–24 years, future research may extend the scope to include adult populations and investigate potential differences across regions of Thailand.

DECLARATION

1. Conflict of interest

The author declares no conflict of interest.

2. Generative AI and AI-assisted technologies in the writing process

The author declares that no generative AI or AI-assisted technologies were used in the writing of this manuscript.

3. Data availability statement

All data used in this study were derived from qualified participants and published sources included in the systematic literature review. No additional data are available.

4. Ethics statement

This study involved human participants and received ethical approval from the Research Ethics Division of Srinakharinwirot University (IRB No. SWUEC-672591; approval date: January 24, 2025). Informed consent was obtained from all participants prior to data collection.

5. Funding

This study received no financial support.

6. Contributor Role Taxonomy (CRediT)

Nuntana Wongthai: Conceptualization, Methodology, Investigation, Data curation, Formal analysis, Writing – original draft, Writing – review & editing.

ORCID

Nuntana Wongthai: <https://orcid.org/0000-0001-5722-6316>

REFERENCES

- Brugman, B. C., Burgers, C., & Vis, B. (2019). Metaphorical framing in political discourse through words vs. concepts: A meta-analysis. *Language and Cognition*, 11(1), 41–65. <https://doi.org/10.1017/langcog.2019.5>
- Brugman, B. C., Droog, E., Reijnierse, W. G., Leymann, S., Frezza, G., & Renardel de Lavalette, K. Y. (2022). Audience perceptions of COVID-19 metaphors: The role of source domain and country context. *Metaphor and Symbol*, 37(2), 101–113. <http://doi.org/10.1080/10926488.2021.1948332>
- Chatti, S. (2022). Military framing of health threats: The COVID-19 pandemic as a case study. In F. M. Federici (Ed.), *Language as a social determinant of health* (pp. 39–61). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-87817-7_2
- Chkhaidze, A., Buyruk, P., & Boroditsky, L. (2021). Linguistic metaphors shape attitudes towards immigration. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43, 2863–2868. <https://scholarship.org/uc/item/1xf1t3vv>
- Cotter, C., Samos, D., & Swinglehurst, D. (2021). Framing obesity in public discourse: Representation through metaphor across text type. *Journal of Pragmatics*, 174, 14–27. <https://doi.org/10.1016/j.pragma.2020.12.015>
- Doquin de Saint Preux, A., & Masid Blanco, O. (2021). The power of conceptual metaphors in the age of pandemic: The influence of the WAR and SPORT domains on emotions and thoughts. *Language & Communication*, 81, 37–47. <https://doi.org/10.1016/j.langcom.2021.08.003>
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>
- Fisher, C. (2020). The flood of refugees in our heads: Metaphorical framing of refugees in German newspaper discourse: A qualitative content analysis. *Journalism Research*, 3(1), 29–45. <https://journalistik.online/en/paper-en/the-flood-of-refugees-in-our-heads-metaphorical-framing-of-refugees-in-german-news-paper-discourse/>
- Hendricks, R. K., Demjén, Z., Semino E., & Boroditsky, L. (2018) Emotional implications of metaphor: Consequences of metaphor framing for mindset about cancer. *Metaphor and Symbol*, 33(4), 267–279. <https://doi.org/10.1080/10926488.2018.1549835>
- Institute for Population and Social Research, Mahidol University. (2023). *Thai health 2023*. <https://www.thaihealth.or.th/wp-content/uploads/2023/11/Thai-Health-2023.pdf>
- Kövecses, Z. (2010). *Metaphor: A practical introduction* (2nd ed.). Oxford University Press.
- Kövecses, Z. (2020). *Extended conceptual metaphor theory*. Cambridge University Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. University of Chicago Press.
- Lecheler, S., & de Vreese, C. H. (2012). News framing and public opinion: A mediation analysis of framing effects on political attitudes. *Journalism & Mass Communication Quarterly*, 89(2), 185–204. <https://doi.org/10.1177/1077699011430064>
- Likitdecharoj, N. (2025, August 13). *Drug war: Over 2,000 deaths in three months with no convictions*. Cross Cultural Foundation. <https://crcfthailand.org/2025/08/13/60394/> [in Thai]

- Office of the Narcotics Control Board. (2024). *Annual drug data*. Ministry of Justice. <https://data.oncb.go.th/year> [in Thai]
- Ottatti, V., Renstrom, R., & Price, E. (2014). The metaphorical framing model: Political communication and public opinion. In M. Landau, M. D. Robinson, & B. P. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 179–202). American Psychological Association. <https://doi.org/10.1037/14278-009>
- Paoaree, S. (2023). *Thailand drug policy reform* [Survey report]. National Institute of Development Administration. <https://nidapoll.nida.ac.th/polls/thailand-drug-policy-reform-public-opinion-2024/> [in Thai]
- Reijnierse, W. G., Burgers, C., Krennmayr, T., & Steen, G. J. (2015). How viruses and beasts affect our opinions (or not): The role of extendedness in metaphorical framing. *Metaphor and the Social World*, 5(2), 245–263. <https://doi.org/10.1075/msw.5.2.04rei>
- Roscoe, J. T. (1989). *Research methods in business* (2nd ed.). McGraw-Hill.
- Semino, E., Demjén, Z., & Demmen, J. (2018). An integrated approach to metaphor and framing in cognition, discourse, and practice, with an application to metaphors for cancer. *Applied Linguistics*, 39(5), 625–645. <https://doi.org/10.1093/applin/amw028>
- The Government Public Relations Department. (2025, February 1). *Anti-drug operations under the “Seal Stop Safe” campaign*. Office of the Prime Minister. <https://thailand.prd.go.th/en/content/category/detail/id/48/iid/361013>
- Thibodeau, P. H., & Boroditsky, L. (2011). Metaphors we think with: The role of metaphor in reasoning. *PLoS ONE*, 6(2), Article e16782. <https://doi.org/10.1371/journal.pone.0016782>
- Thibodeau, P. H., & Boroditsky, L. (2013). Natural language metaphors covertly influence reasoning. *PLoS ONE*, 8(1), Article e52961. <https://doi.org/10.1371/journal.pone.0052961>
- Thibodeau, P. H., & Boroditsky, L. (2015). Measuring effects of metaphor in a dynamic opinion landscape. *PLoS ONE*, 10(7), Article e0133939. <https://doi.org/10.1371/journal.pone.0133939>
- UNAIDS. (2023, June 26). *Compassionate care for people who use drugs in Thailand*. https://www.unaids.org/en/resources/presscentre/featurestories/2023/june/20230626_people-who-use-drugs-thailand
- United Nations Office on Drugs and Crime. (2018, April). *People at center: UNODC support for UNGASS 2016 on the world drug problem*. United Nations. https://www.unodc.org/documents/postungass2016/follow-up/18-01924_UNGASS_eBook_002.pdf