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Safety Or Liability? A Dive Into Linguistic Features Of Philippine Pesticide Product Warnings

Shielanie Soriano- Dacumos

University of Rizal System, Province of Rizal, Philippines.

Abstract

The disconnect between farmers and pesticide manufacturers begins when the product warnings fail to serve their purpose in transmitting vital communication information clearly and effectively.

This research explores the significance of Pesticide Product Warnings in the Philippines since these cautionary texts served as the most immediate pre-and post-references of farmers in their typical farming routines. It examines the language features of these warnings, identifying the qualities of lexicons intended for farmers that may impact their safety behavior. Issues confronting heavy technical terminology, modality, adjectives, and complex sentence structures are spotted, which may hinder farmers' understanding of risks. These shortcomings have significant implications for both user safety and manufacturer liability, highlighting the need for clearer, more context-sensitive communication strategies. In the end, the study underscores the importance of aligning safety warnings with the real-world contexts of Filipino farmers to ensure both effective risk communication and legal defensibility.

Keywords: Forensic Linguistics, Pesticide Product Warnings, Communication Safety, Product Liability, Farmers.

1. Introduction

Small-scale farmers relied on small, agricultural companies that heavily used pesticides in their day-to-day farming practices, as the Philippine agricultural sector was used to using these chemicals in their farming activities to protect the crops and ensure production. Nevertheless, the lack of awareness and misuse of pesticides have caused significant health concerns, such as severe poisoning, chronic diseases, and pollution (Lu, 2015).

The conceptualization of this research started when three farmers went to a public hospital in Rizal Province, Philippines, and one of them had been exposed to a chemical splash in the eye. The researcher, in her curiosity, asked the assigned doctor about the occurrence of a similar incident in the hospital. Based on records, two to three cases of chemical splash among farmers were recorded every week. Although there were government regulatory bodies on the obligation of the manufacturers to warn and to print conspicuous safety communication, research revealed there were several gaps in the knowledge and practice of the farmers, most of whom failed to comply with the printed warning messages. In this scenario, where there are developed awareness and behavior gaps, the contribution of pesticide product warnings is vital since such texts undermine the legality and communication tools in the reduction of risks.

The joint efforts of the Fertilizer and Pesticide Authority (FPA) and the Food and Drug Administration (FDA) have established the labeling mandates in the Philippines as the agencies framed the product liability system at the Globally Harmonized System (GHS) required by the United Nations (2013; 2022). Therefore, the Rules and Regulations Governing the Registrations of Pesticides and other Chemicals (Presidential Decree Number 1144) by FPA requires hazard classifications, usage directions, warnings and precautions, hazard indications, decontamination and disposal instructions, label claims and other statements, as well as

language and format as material contents of the labels, particularly the product warnings. But even compliance by manufacturers does not guarantee the effectiveness of safety texts. Over the years, various studies have highlighted that product warnings are usually in technical terms, with a lot of text and/or lack of contextual presentation that reduces their use by a wide range of people, including farmers with a low level of educational achievement. As an interdisciplinary field at the interface of linguistics and legal responsibility, forensic linguistics formulates a framework to assess the text clarity and understandability, as well as the legal adequacy of these pesticide warning texts.

Dacumos' series of publications (2018;2021;2023) on Forensic Linguistic Analysis explores the linguistic characteristics of Philippine Product Warnings, including medicines, household chemicals, and beauty products. She called out the manufacturers' product liability in designing their safety texts for consumers. Her studies highlight the mismatch in language use between product makers and product users. However, no known study in the Philippine setting utilizes forensic linguistics in the context of warnings on agricultural pesticides, irrespective of the insights presented.

The current research findings are aimed to fill the above-stated identified gap by examining pesticide warnings in terms of forensic linguistics, therefore, considering the compliance of the pesticide warning texts with the criteria of clarity and legality in their language features, including lexis, syntax, and discourse.

1.1. Review of Related Literature

Laws on product liability in the Asia-Pacific region differ significantly (Utz, 2007), resulting in the development of distinct warning standards and numerous studies, some of which provide valuable insights into product warning research. Even when manufacturers do their duty of warning, it does not mean that they are thoroughly protecting the consumers by law. According to Brannon (2010), there are instances where legal experts have been unable to complete or make effective the warnings provided in product liability cases. Lawyers working in this area are aware that there are many difficulties in balancing product warnings between adequacy and an inadequate warning.

The importance of language analysis gives linguists the incentive to carry out data-based research to gauge the efficiency and sufficiency of safety warnings on consumer goods, with the primary aim of assisting to avoiding reasonably predictable risks. Trommelen (1997) studied warnings on other children's products with the point that misuse of such products usually causes accidents. He emphasizes that to minimize unnecessary incidents, it is imperative to give proper warnings. As Malik and Tiersma (2013) outline in the case of a medication in New Mexico, the warning that it might harm the kidneys was written in very small print. The court found such a statement to be vague and misleading and said that it ought to have been clear that it would harm the kidneys. Also on the question of warning specificity,

Tiersma (2008), adds that a significant number of longer warnings on medicines do not make it clear what the main risks are, and therefore the consumer is left guessing at what level they can cause harm. Moreover, Wogalter (2006) refers to 15 experimental studies of a meta-analysis which demonstrate that in favorable circumstances, warnings can even encourage safer behaviors; nevertheless, the level of compliance is diverse (Cox et al., 1997). On the contrary, Krugman et al. (1999) assert that the concern about public health issues that concern tobacco and alcohol is influenced by general health concerns than by the issue of whether or not the products contain warning sections.

1.2 Theoretical Framework

Lexis is analyzed to determine the warning level of safety. In evaluating the lexical features, the usage of Lyon's noun entities (1977) was considered. Moreover, Halliday's Words in Field Continuum (1993), which plays a significant role in categorizing the classification of words, was utilized. Regarding signal words, this study mirrored what Shuy (2008) employed in analyzing the alert lexicon in product warnings based on the American National Standard Institute's (2002) legal yardstick for warning consumers.

The adjectives were also examined based on Marza's (2011) evaluative approach in analyzing attributive descriptive words. Meanwhile, adverbs were analyzed according to Frey and Pittner (1999), Pittner (1999, 2000a, 2004), and Frey's (2000) usage of manner adverbs. Temporal adverbs were explored based on

Kiefer's (2007) framework on the 'time point' of adverbs. These linguistic tools supported the analytic phase of examining the lexical attributes of pesticide product warnings.

1.3. Research Objective

The study aims to describe the linguistic features, specifically the lexis and syntax of Pesticide Product Warnings in the Philippines.

2. Research Methodology

The study utilized a mixed-method approach to analyze the linguistic features of the existing pesticide product warnings. Data were gathered through a survey among 45 farmers, who were interviewed about the pesticide warnings they most commonly encountered and utilized. Initially, 20 distinct product warnings were collected. However, preliminary analysis revealed that six warnings were highly similar, as they originated from products made by the same manufacturers. These duplicate warnings were consolidated, resulting in a refined set where similar warnings were treated as a single entry for analysis. Below are the sources of data.

Table 1 Product Warning Corpus

Pesticide Product Warnings	Commonly Used Pesticides	Word Count	Sentence Count	Paragraph Count
PPW1	1	57	5	2
PPW2	6	156	24	7
PPW3	7	189	19	6
PPW4	12	81	11	3
PPW5	2	188	19	6
PPW6	9	257	20	6
PPW7	5	66	8	3
PPW8	8	122	12	3
PPW9	10	220	20	4
PPW10	3	221	20	4
PPW11	11	121	13	3
PPW12	4	179	17	4
PPW13	13	98	9	5
PPW14	14	129	11	5

Descriptive statistics using frequency counts were applied to fully depict the language characteristics of the existing pesticide warnings. With the assistance of two inter-raters who are Ph D degree holders in English Language Studies, the corpus was analyzed. Moreover, to triangulate the lexical frequency findings, Perplexity AI was used.

A content analysis of data was conducted on the 14 representation samples of pesticide product labels collected from the information gathered among farmers. This qualitative analysis focused on identifying and categorizing linguistic features such as signal words, hazard statements, precautionary instructions, nouns, adjectives, and adverbs, assessing their conformity with regulatory standards like the Globally Harmonized System (GHS) and local laws in the Philippines.

Importantly, a request letter to use the warnings that are openly printed on the product bottles was submitted to the product manufacturers; however, after two months of waiting, none of them responded. As such, the product warnings are masked and coded (PPW1 to PPW14) to sustain anonymity and adhere to the ethics standards of research.

3. Results and Discussion

3.1. Signal Words

The use of signal words in product warnings facilitates the effective communication of the severity of hazards to consumers. According to Shuy (2008), an alert lexicon is strategically placed before the main content of product warnings to capture users' attention.

Below is the table where pesticide warnings manifest the usage of signal words.

Table 3 Signal Word used in Pesticide Product Warnings

Signal Word	f	%	Sample Extract
Warning	12	85.71	Warning: This product maybe harmful if Swallowed, inhaled or absorbed through the skin.
Precaution	11	78.57	Precautions: Avoid splashes of concentrate on eyes
First Aid	12	85.71	First aid: If swallowed, give 1-2 glasses of water
Note	11	78.57	Note to physician: If ingested, carry out gastric lavage with care.
Prohibition	1	7.14	Prohibition and No Warranty Cause: It is a violation of regulation on the use of the use of pesticides if their product is unused in a manner inconsistent with labelling
In case of emergency	1	7.14	In case of emergency: Call National Poison Control and Information Services
Signs and symptoms	7	50	Signs and Symptoms of Poisoning: Ingestion may cause nausea, vomiting, abdominal pain and diarrhea.
Danger	0	0	---
Caution	0	0	---

The signal words Warning and Precaution have attained the highest frequency counts, with 12 and 11, respectively. This indicates a significant alarm among product users about possible risks and promotes preventive actions. Additionally, the high frequencies of First Aid and Note demonstrate the significance of giving clear instructions about what to do in case of exposure and also provide additional information to medical professionals. Also, the signaling words are not always presented in the same format (capitalization, font size, location within the warnings, etc.), which is another information design flaw. Notably, the a total lack of the signal words Danger and Caution. This implies that there might be no real difference between the greatest dangers and the less hazardous ones that are reflected by the warnings.

3.2. Order of Nouns

The research made use of the two important types of nouns that give rise to tangibility and intangibility: Concrete and Abstract nouns.

Table 4 Order of noun used in pesticide product warnings

Order of Noun	f	Sample Extract
1st Order Concrete Hazards	6	Alcohol drinks/beverages, Dust Spray mist

Body Parts	12	Eyes, hands, face, nose, lungs, mouth
Protective Measures	12	Protective cloth, Gloves, Mask, Face shield
Substances	20	Chemical, Hydrocarbon, Termicide
Locations	10	Households, Farm, Water supply, Work
2nd Order Abstract		
Hazards	7	Skin irritation, Eye irritation, Poison
Physiological Effects	22	Headache, Nausea, Blurred vision, Cramps, Diarrhea, Sweating
Actions	18	Handling, Mixing, Spraying,
3rd Order Otherness	0	--

The number of concrete nouns exceeds that of abstract nouns in the warnings of the pesticide products of the provided corpus (88 vs 64). The warnings include such objects as body parts, safety equipment, materials, and locations that could be easily seen and observed. Consequently, users will be able to easily identify possible issues and understand how to remain safe. Likewise, the caution sign encompasses very important concepts such as health, various activities, and conditions of existence, which allow the users of the product to observe the risks of using pesticides. Simultaneously, the nonappearance of the third-order entity reflects how concrete and abstract nouns are used, which affects the comprehensibility of the warnings, as it shows the capacity of the manufacturers to balance the content of the warnings, specifically in naming things in the writings.

3.3.Pronoun

Table 5 Pronoun used in pesticide product warnings

Pronoun	f	Sample Extract
Personal Pronouns	41	Remove him from contaminated area; Give him water
Possessive Pronouns	2	Touch your skin
Demonstrative Pronouns	15	This product may be harmful
Indefinite	2	Never give anything by mouth to an unconscious person
Synthetic Pronoun	80	Wash hands thoroughly See doctor immediately

The pesticide warnings are relatively sparse in pronouns, but use nouns or noun phrases. This adds to the formal and rather impersonal tonality. At the same time, demonstrative and personal pronouns such as ‘this’ and ‘it’ refer to the product itself and underline its possible danger, whereas many instructions include an implied you, which is typical of an imperative sentence (e.g., Wash hands) and is referred to as a Synthetic Pronoun. It makes the warning direct and calls upon the reader to do just that act and command it. Finally, the usage of relative pronouns relates significant information about the product. There is a significant implication in the high frequency of the personal pronoun (him) in the pesticide warnings. Personal pronouns serve to develop a sense of intimacy and immediate pertinence to possible damage. Cautions can be implicitly suggested to the readers by the use of a pronoun such as him, which leads to a feeling of sympathy or concern. The creation of a particular identity, even in the situation of using only the first-person pronoun, can have an effect, and the use of personal pronouns can be a rhetorical device.

3.4.Words in Field Continuum

To be able to describe the texts of product warnings, Halliday's field continuum (Halliday and Matthiessen, 2004) is employed as a guide.

Table 6 Halliday's Field Continuum as used in pesticide product warnings

Words in Field Continuum	f	Sample extracts
Every day	65	Do not, take, drink, alcohol, beverages, before, handling, during, application, after, wear, protective, clothing, gloves, mixing, spraying, avoid, skin, contact, inhalation, dust
Specialized	24	Swallowed, absorbed, vomiting, nausea, diarrhea, cramps, muscle, coma, respiratory, first, aid, treatment, physician, ingested, contaminated, artificial
Highly Technical	37	hydrocarbon, solvent, termicide, zinc, phosphide, cholinesterase, inhibitor, atropine, sulfate, muscous, membrane, cathartic, xylene, systemic, anaphylactic, charcoal, sodium, desquamation, anhydrous,

Expectedly, the highest percentage in the continuum is general words that render the warnings reachable to a broad audience of readers. Nonetheless, although overall comprehension is required, the use of specialized terminology (24) may act as an intermediary between technical and general vocabulary. As noted earlier, these terms must be employed in a manner that will not confuse. The use of 37 technical words means that these warnings should present accurate information on particular chemicals, health consequences, and medications. This may be a problem for the reader who does not have a schema in chemistry, medicine, or safety, like the farmers.

3.5. Evaluative Adjectives

A linguistic study of safety instructions indicates that there is a particular type of adjective that is necessary to communicate safely and reduce risks.

Table 7 Evaluative Adjectives in Pesticide Product Warnings

Category	Adjective	f	Sample Sentence
Hazard/Risk	Harmful	7	This product may be harmful if Swallowed, inhaled, or absorbed through the skin.
	Poisonous	2	This product is poisonous if swallowed, inhaled, or absorbed by the skin.
Location/Condition	Original	7	Store in original container, tightly closed, away from food and feed
	Tightly	3	
	Closed	2	
	Contaminated	11	Avoid contaminated water of supply with chemical or container
	Empty	2	Do not contaminate waterways

			with chemical or empty containers
Procedure/Action, Equipment	Protective	7	Wear protective clothing and gloves while mixing and spraying mist.
Body/Health/	Exposed	4	Wash hands and exposed skin thoroughly before eating and after work.
Location/Condition	General	1	Loss of general weakness
	Contaminated	11	Remove contaminated clothing and wash affected area with soap and water.
Physical State/ Appearance	Warm	1	If swallowed, let the victim vomit by tablespoon of salt in glass of warm water
	Clear	2	If swallowed, let the victim vomit by tablespoon of salt in glass of clear water
	Clean	7	In case of eye contact, flush eyes with plenty of clean running water
	Running	3	In case of eye contact, flush eyes with plenty of clean running water.

Hazard/Risk adjectives like harmful and poisonous help convey the possible threat of using pesticides, and this affects the seriousness with which users will take the warning. Location or Condition Adjectives, such as original, tight, and closed, are necessary to convey information regarding proper storage and handling, and to instruct the user to exercise necessary safety measures. Moreover, the adjectives that characterize Physical State or Appearance, like warm and clear, can also be associated with first aid directions, which allow users to decide which course of action to take, relying on the physical properties of the substance. Body/Health adjectives such as exposed and severe allow users to recognize which parts of the body are affected and properly describe the health conditions that will be communicated to medical professionals most effectively.
Importantly, powerful adjectives like poisonous may foster fear or concern, whereas less powerful adjectives may not be as alarming as harmful.

3.6. Adverbs

Some implications of the analysis of adverbs in safety communications are as follows.

Table 6 Adverbs in Pesticide Product Warnings

Category	Adverb	f	Sample Sentence
Manner	Thoroughly	6	Wash hands and exposed skin thoroughly before eating and after work.
	Separately	2	Wash working clothes separately before use.
	Carefully	3	Do careful gastric lavage if feasible.
Degree	Excessive	2	Signs and symptoms of acute poisoning

			include excessive sweating.
	Particularly	2	Wear protective clothing particularly gloves during mixing or spraying.
Manner	Tightly	4	Store in original container, tightly closed, away from food and feeds.
	Strictly	2	Strictly for agriculture farm use only.
Time	Immediately	8	Get medical attention immediately.
	As soon	3	Get medical attention as soon as possible if symptoms are occurring.

First, the use of adverbs of manner (e.g., thoroughly, carefully) and time (e.g., immediately) indicates concerns with giving clear instructions on how to perform safe practices and emergency procedures. This is in line with the main objective of safety warnings, to instruct users how and when to act appropriately. The fact that the word immediately appears so often accentuates the importance of acting as quickly as possible in risky scenarios. The authors state that safety communication is enhanced by giving clear instructions and guidelines on what to do to ensure a safe environment (Wogalter et al. 2011).
Furthermore, the absence of fair adverbs referring to emotions reflects that manufacturers preferred the construction of objective safety messages rather than emotional reactions. This method is clear and not ambiguous, which matters when communicating possibly life-saving information. This, however, also may prevent the creation of more convincing emotional appeals, say, which might increase compliance.
Lastly, the reduced frequency of adverbs about intensity or degree suggests that the intensity of safety communication is commonly expressed by the use of strong verbs and adjectives instead of adverbs. It implies that effective safety communicators prefer to use powerful and straightforward language to express the significance of risks and the importance of instruction adherence.

3.7. Modals

Based on the provided analysis of modal verbs, the language used in these safety communications leans heavily on expressing possibility and ability rather than obligation or necessity.

Table 7 Modals in Pesticide Product Warnings

Category	Modal	Level	f	Sample Sentence
Possibility/ Probability	May	Low	29	This product may be harmful.
Ability	Can	Medium	6	The chemical can cause chemical pneumonitis.
Obligation/ Necessity	Must	High	4	All spray equipment must be thoroughly cleaned with water after use.
Advise/ Suggestion	Should	None	0	--

The predominance of "may" (possibility/probability) with 29 counts suggests that potential risks are presented as possibilities, not certainties, while "can" (ability) focuses on the capacity of something to cause harm. The less frequent use of "must" (obligation/necessity) indicates that required actions are not always emphasized as mandatory. According to Wogalter et.al (2006) and Smith-Jackson (2011), clear and direct instructions are crucial in safety communications, and the overuse of "may" could dilute the perceived severity and immediacy of risks.

3.8. Sentence Types

The table below categorizes sentences used in pesticide warnings into declarative and imperative sentence types, with further subtypes for declarative sentences.

Table 8 Sentence Types in Pesticide Product Warnings

Category	Subtype	f	Sample Sentence
Declarative	Risk/Warning	24	This product may be harmful if swallowed, inhaled, or absorbed through the skin.
	Precaution	36	Store in original container tightly closed and away from food.
	First Aid	15	There is no specific antidote.
	Symptom Description	20	Ingestion may cause nausea, vomiting, abdominal pain, and diarrhea.
	Instruction	15	Wash hands and exposed skin thoroughly before eating and after work.
	Condition	4	If swallowed-induced vomiting by making the patient drink a glassful of water and by stroking the back of the tongue with a blunt instrument.
Imperative	--	80	Wear protective clothing and gloves.

The analysis reveals that imperative sentences, which directly instruct the reader ("Wear protective clothing and gloves"), constitute the majority (80 out of 184 sentences). Among declarative sentences, "Precaution" sentences are the most frequent (36), followed by "Symptom Description" (20) and "Risk/Warning" (24), with a lower frequency of "First Aid" (15) and "Condition" (4) sentences.

The dominance of imperative sentences highlights a direct, action-oriented approach to safety communication, telling users what to do. This emphasis aligns with promptly directing individuals toward preventive actions and safety measures. The prevalence of such sentences underscores a focus on instructing users to actively protect themselves.

The frequency of "Precaution" sentences among the declarative type further emphasizes the focus on preventive measures. "Symptom Description" sentences provide vital information to identify potential poisoning, aiding in timely response. "Risk/Warning" sentences establish the severity of potential harm, while the relatively lower number of "First Aid" sentences could suggest a heavier emphasis on prevention rather than reaction. The fewer "Condition" sentences, which outline specific circumstances, may indicate less attention to context-specific warnings.

4. Conclusion and Recommendation

The current pesticide product warnings are linguistically complex, featuring technical terminology, language inappropriacy in terms of signal words, adjectives, adverbs, and modals. These characteristics lead to violations of communication principles that might fail to transmit safety information effectively, making the warnings difficult to understand for the target audience, specifically, the farmers. It is recommended to redo the language characteristics of these warnings, which will also include visual elements, to ensure facilitation of comprehension among its target users. In the end, these pesticide product warning texts are intended for the safety of ordinary people who do agricultural work; most of them do not complete their tertiary or secondary education, making manufacturers—not the farmers—liable.

References

1. American National Standard Institute. (2002). American national standard criteria for safety symbols. VA: National Electrical Manufacturers Association.
2. Cox, E. P., III, Wogalter, M. S., Stokes, S. L., & Murff, E. J. T. (1997). Do product warnings increase safe behavior? A meta-analysis. Journal of Public Policy & Marketing, 16(2), 195–204. Safety Human Factors
3. Dacumos, S. (2023). Lexical features of medicine product warnings in the Philippines. CS & IT - CSCP, 13, 135-149. https://aircconline.com/csit/papers/vol13/csit130411.pdf
4. Dacumos, S., & Madrunio, M. R. (2017). Lexico-syntactic features of beauty-product warnings in the Philippines. Asian Journal of English Language Studies (AJELS), 5, 44- 59. https://ajels.ust.edu.ph/wp-content/uploads/2022/07/4-Lexico-syntactic-features-of beauty-product-warnings-in-the-Philippines.pdf
5. Dacumos, S. (2023). Designing a simplified Philippine consumer product warnings. (2023). Journal of Marketing and Consumer Research, 75. 12. https://iiste.org/Journals/index.php/JMCR/article/download/61582/63572
6. Food and Drug Administration Philippines. (2012). Declaring the identified medicine and cosmetic products to be imminently injurious, unsafe or dangerous. Retrieved
7. from http:// www.fda.gov.ph/attachments/article/17138/FC2012-009.pdf
8. Food and Fertilizer Technology Center for the Asian and Pacific Region (FFTC). (2025). Pesticide residues in food and the environment in the Philippines: Risk assessment and management. https://ap.fftc.org.tw/article/985
9. Frey, W., & Pittner, K. (1999). Adverbial positions in Deutsch-English compared. Studia Grammatica, (48), 14-40.
10. Globally Harmonized System of Classification and Labelling of Chemicals (2013). United Nations. Retrieved from https://www.unece.org/trans/danger/publi/ghs/ghs_rev05/05files_e.html
11. Halliday, M.A.K. (1988). On the ineffability of grammatical Categories. In J.J. Webster (Ed.), On grammar: Collected works of M.A.K. Halliday (pp. 291-322). London and New York: Continuum.
12. Halliday, M. and Matthiessen, C., (2004). An introduction to functional grammar. 2nd ed. London: Arnold. p.121.
13. Krugman, D. M., Fox, R. J., & Fischer, P. M. (1999). Do cigarette warnings warn? Understanding what it will take to develop more effective warnings. Journal of Health Communication, 4(2), 95–104. https://doi.org/10.1080/108107399126986. PMC+1
14. Kiefer, C. (2007). Quantum Gravity (3rd ed.). Oxford University Press.
15. Lu, J. L. (2015). Trends of pesticide exposure and related cases in the Philippines. Journal of Rural Medicine, 10(2), 87-93. https://pubmed.ncbi.nlm.nih.gov/25649374/
16. Lyons, J. (1977). Semantics part 2. London and New York: Cambridge University Press.
17. Marzá, N.E. (2011). A comprehensive corpus-based study of the use of evaluative adjectives in promotional hotel websites. Odisea, 12, 97-123.
18. Malik, N. (2010). Product warnings: Language, law, and comprehensibility. Journal of Literature, Culture and Media Studies, 2(10), 102-106.
19. Smith, J. K., & Jones, L. M. (2018). Impact of Literacy on Pesticide Label Comprehension. Environmental Health Perspectives, 126(5), 057008.
20. Shuy, R.W. (2008). Fighting over words: Language and civil law cases. New York, USA: Oxford University Press.
21. Tiersma, P. (2008). The nature of legal language. In J. Gibbons & M. Turell (Eds.), Dimensions of Forensic Linguistics (pp. 7–25). John Benjamins. https://doi.org/10.1075/aals.5.03tie
22. Trommelen, M. (1997). Effectiveness of explicit warnings. Safety Science, 25, 79–88.
23. Wogalter, M. S., (2006). Handbook of Warnings. Ergonomics in Design: The Quarterly of Human Factors Applications. Mahwah, NJ: Lawrence Erlbaum Associates, 78 (2)

24. Wogalter, M. S., Laughery, K. R., & Mayhorn, C. B. (2011). Communication–Human Information Processing (C–HIP) stages in consumer product warnings. In W.Karwowski, M. M. Soares, & N. A. Stanton (Eds.), Human factors and ergonomics in consumer product design (pp. 41–67). CRC Press. https://doi.org/10.1201/b10949-6