Humanitarian Calls for Blood Donation: 
Construction of Binary Message on @pmikotabogor

Panggilan Kemanusiaan untuk Donor Darah: 
Konstruksi Pesan Biner dalam @pmikotabogor

Koesworo Setiawan
Universitas Djuanda
email: koesworo.setiawan@unida.ac.id
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Abstract

The blood stock of the Indonesian Red Cross (PMI) is running low due to restrictions on community activities during the Covid-19 pandemic. The decline in stock was exacerbated by the public's view that the transfusion process had been contaminated with the virus. This study aims to analyze PMI messages to the public for increasing blood stock through @pmikotabogor Instagram accounts used Ferdinand de Saussure's semiotic techniques. Data was collected from 896 contents posted to those account during 2020. Through the categorization process, 22 relevant content (graphic) posts were obtained answering research questions, which two of them became the unit of analysis. Content as a sign was constructed through Saussure's binary opposition principal which are selection (paradigmatic axis) and combinations (syntagmatic axis). The results showed, to deal with a critical situation, PMI Bogor City conveys a “humanity call” to the public through two types of messages, namely “call for blood donors” and “safety” during blood transfusions.

Key words: Blood Stock, Indonesian Red Cross, Ferdinand de Saussure

INTRODUCTION

Through a safe, accessible and affordable transfusion process, blood plays an important role to cure diseases and restore human's health (visiblebody.com 2022). Of the three blood transfusion models, namely voluntary, paid, and family/surrogate (Fosgaard et al. 2020; Yuan et al. 2011; Arcot et al. 2020), Indonesia adheres to the altruistic principle in blood supply (Law No. 36 of 2009 concerning Health), namely blood donation activities based on willingness without reward, respect, and empathy for others. The Indonesian government adheres to altruistic principles in the supply of blood (Law No. 36 of 2009 concerning Health), namely blood donation activities are based on willingness without reward, respect and empathy for others.

In the view of the Government of Indonesia, blood is a basic ingredient in health services used for humanitarian purposes (Law No. 36/2009, Article 86 (1), not for commercial one (Article 86 (2)). In Indonesia, blood supply services are provided by the Blood Transfusion Unit (Unit Transfusi Darah/UTD) (Law No. 36/2009, Article 86). UTD is a health service facility that organizes blood donors, blood supplies, and blood distribution. UTD is only held by the government, local government, the Indonesian Red Cross (Palang Merah Indonesia/PMI) and the Hospital Blood Bank (Bank Darah Rumah Sakit/BDRS) (Ministry of Health 2014).

Referring to WHO provisions, at least 1-3% of a country’s population needs to donate blood to meet the country’s annual blood needs (WHO 2008). Indonesia sets a benchmark at 2.5%. However, in reality, this
amount cannot always be met. The availability of blood, which continues to increase from year to year, does not automatically meet the ideal proportion. In 2016, national blood production in Indonesia only reached 4,201,578 bags (81.8%), of the ideal number of 5,174,100 (2.5% of the 2016 population of 258,704,986 people). Or there is a shortage of 972,522 bags.

It is increasingly difficult for blood stocks to reach the ideal amount during the Covid-19 pandemic. Nationally, PMI blood stock has fallen to 50% (Agustiyanti, 2020). The decline was also experienced by PMI Bogor City, which reported that the availability of blood had fallen by 70% (Haryudi 2020; PMI Bogor City 2020).

With this decrease in supply, blood stocks are only sufficient for one or two days, compared to the normal situation they can be sufficient for 30 days (Rossa & Efendi 2020). The decrease in blood stock was caused by a policy of limiting community activities which prevented citizens from moving to blood donor facilities freely. In the community there is also a growing notion that the process of blood transfusion is vulnerable to being a means of transmission of the Covid-19 virus (Situmorang 2020; Aditya & Meilianna 2020). On the other hand, blood is still needed in critical situations such as mothers giving birth, operations, accident victims, cancer, and thalassemia.

Under these conditions, PMI Bogor City (hereinafter referred to as PMI) must arouse public participation in order to donate blood, as well as neutralize the issue of insecurity during blood transfusions. The efforts are carried out in various ways, one of which is through social media @pmikotabogor.

The use of social media as a means of interacting with audiences is a common choice for institutions including PMI, community groups and individuals in the digital era. It is reasonable because of the large number of internet users in Indonesia. Quoting Hootsuite (We are Social): Indonesian Digital Report 2022, as of February 2022, out of a total Indonesian population of 277.7 million internet users in Indonesia, it reached 204.7 million people (73.7%), up 1% from 2021 (Datareportal 2022).

Mobile internet device users (mobile) recorded as many as 370.1 million (133.3%), up 3.6% from 2021. Then, active social media users also increased by 12.6%, from 170 million in 2021 to 191.4 million. For Instagram, it occupies the second most used position, namely 84.8%. The top position is occupied by Whatsapp with 88.7% and number three Facebook with 81.3% (Datareportal 2022).

Experts develop different definitions of social media. Howard and Parks (2012) stated that social media contains three characteristics: (a) information tools and tools that produce and disseminate content, (b) content is a digital form of personal messages, news, ideas and cultural products, and (c) people, organizations, and industries that produce and use digital content.

Carr and Hayes define social media as a mass communication channel with personal accounts that are internet-based, undirected, and actively facilitate perceptual interactions among users, deriving value mainly from user-generated content (Carr & Hayes 2015). Social media is an interactive communication channel that is a means of direct interaction and responsive real time, reducing anonymity, building closeness (Kent 2010).

Instagram is a free photo and video sharing application. Users can upload photos or videos and share them with their followers or with a selected group of friends. Users can also enter captions (caption) on each shared content (Instagram 2022). Captions are descriptions that make it easier for visitors to understand the content and intent of the content (photos, videos, posters, and so on). Instagram users can also view, comment on, and like posts shared by account owners and their friends.

In the nineteenth century, linguistic studies were dominated by the diachronic approach which looks at language change in relation to the history of a particular language. The philologists of that era saw the word as both a name and a thing. Ferdinand De Saussure comes with a new view, that the word is a means of direct interaction and response-real-time, reducing anonymity, building closeness (Kent 2010).

Synchronic linguistics focuses on the configuration or relationship between language elements and not on their intrinsic value. Saussure emphasizes language as a system of rules and conventions that operate outside the individual, an abstract knowledge of the language system (language), from the concrete use of language (parole) (Chandler 2007; Sukyadi 2013).

Saussure uses the game of chess as an illustration of the differences in the nature of language. In a game of chess, it is not only the configuration of the pieces on the board (its intrinsic/diachronic value) that is important to note, but also the differential (synchronous) relations between the pieces (Mambrol 2018).

The sign for Saussure is interpreted as a dichotomy language and parole based on the principle of binary opposition (binary system), namely a sign system or system of thinking that presents two concepts (unit of language) that has value or meaning. Both are structurally connected and exist together to form meaning (Mambrol 2018). The sign in Saussure’s concept is two-all, known as binary opposition or binary system (Setiawan & Said 2022).

Binary opposition is a fundamental thought in Saussure’s theory which is signs are divided into signifiers (sound images) and signified (concepts). Saussure emphasizes that the relationship between signifier and signified is conventional, arbitrary and psychological (Reda 2016), depending on social conventions (Reda

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For Saussure, signs are connected by means of being combined or substituted through two axis which are paradigmatic and syntagmatic axis. Syntagmatics are the orderly combinations and interactions of signifiers in a kind of “chain” arrangement—called a horizontal “chain”. The syntagmatic axis describes associative relationships that can be understood intertextually. The paradigmatic axis is on the vertical axis that can be understood intratextually with the pattern: this or this or this or this (Chandler 2007; Asp 2017; Saussure 2013). The paradigmatic axis is on the vertical axis with the pattern: “this or this or this or this”. (Chandler 2007.; Asp 2017; Saussure 1986; Saussure 2013).

For example in Table 1, on the paradigmatic axis, the word “mother” is appropriate when paired with “carrying + child”. When “mother”, is replaced by “horse” that is, becomes “horse + carrying + child”, it creates an incomprehensible meaning. Similarly, the word “car” would not be paired with “carry + child”. For example in Table 1, on the paradigmatic axis, the word “mother” is appropriate when paired with “carry + baby”. When “mother”, is replaced by “horse” that is, becomes “horse + carry + child”, it creates an incomprehensible meaning. Similarly, the word “car” would not be paired with “carry + child”.

Table 1. Syntagmatic axis and paradigmatic axis

<table>
<thead>
<tr>
<th>Paradigmatic</th>
<th>Syntagmatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>carry + baby</td>
</tr>
<tr>
<td>Car</td>
<td>transport + stone</td>
</tr>
<tr>
<td>Horse</td>
<td></td>
</tr>
</tbody>
</table>

Source: Saussure (1916) in Chandler (2007), processed

The semiotic analysis is generally widely used in the linguistics studies, culture such as literary works (novels, films, plays, etc.), creative products, gender issues, or social interactions based on certain tribes and ethnicities. Others are also used for understanding political messages, especially in the mass media. Conceptually, semiotics study was used as an analytical method more often on the “basic concepts,” namely signifier and signified.

This research uses syntagmatic-paradigmatic principles, not only because of the binary opposition concept is rarely used in various semiotics studies, but also this concept is quite reliable in analyzing the construction of messages on @pmikotabogor accounts. The topic of blood stock scarcity has a serious impact on humanity that has not yet been of concern for researchers, especially in semiotic studies.

METHODS

This study aims to examine the messages on @pmikotabogor Instagram accounts, as a medium for PMI to raise the public awareness about the blood crisis situation they were facing, and how they were willing to donate blood. This study used the qualitative methods with Ferdinand de Saussure’s semiotic analysis technique. Data collection was carried out using observation techniques, namely carrying out systematic descriptions of events, behaviors or artifacts (Marshall & Rossman 2016) on research objects. Artifacts are forms and works of the community for their own use, which can be in the form of photos, drawings, graphics, films, videos, text, music, dance, and so on. As documented tangible material, artifacts can provide historical evidence or information (Edwards & I’Anson 2020).

Observations were made on the @pmikotabogor as an object of research where the researcher took the role as non-participant observer. Researchers observe and process artifacts in the account. The artifacts in question are content posted on the @pmikotabogor, in the form of photos, videos, graphics and infographics. These artifacts are expressed as data for further categorization, selection and reduction. The stages of data collection are limited to the content posted during 2020. Researchers focused on categories that were relevant to answering research questions, namely blood donation. Then, the content is analyzed with
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Saussure’s basic concept of semiotics, binary opposition, using syntagmatic-paradigmatic principles to understand the relationships between language units.

FINDING AND DISCUSSION

1. Finding

Based on observations of the @pmikotabogor Instagram account a total of 896 contents were posted during 2020. Through the categorization process, the content is grouped into four themes, namely health protocols, blood donations, red cross affairs activities, fundraising and internal activities/information.

Through data validation, there are 22 content related to blood donation, and two of them (in the form of graphics or posters) are the unit of analysis because they are the most representative in answering research questions. The result is that there are two main contents that are considered the most representative as reviewed in Picture 1 and Picture 2.

Graphic content is a visualization of ideas supported by illustrations in the form of pictures or other art techniques. Illustrations are often supported by narration as an additional explanation so that in the graphics on the @pmikotabogor content, illustrations are displayed along with narration.

![Figure 1. Socialization of blood donation in five graphic series.](image)

Source: @pmikotabogor

Picture 1 contains five boxes connected from left to right (named Picture 1a, 1b, 1c, 1d, and 1e). The picture are arranged following the principles of binary-opposition based on the paradigmatic-syntagmatic axis. Binary-opposition principle applied both to the whole and to every element of the image, namely narrative and illustration.

The narrative in Picture 1a, contains two ideas, namely 1a(x) the enforcement of social distancing rules and 1a(y) blood stocks that have decreased by 70%. The narratives in 1a(x) and 1a(y) were born from a selection process following the paradigmatic axis. This pair of language units is accompanied by another illustration in the form of an incomplete blood bag 1a(z).

According to syntagmatic principles, the three image elements namely 1a(x), 1a(y), and 1a(z) are arranged according to meaning. If one is replaced with another sign that does not match, it can distort the meaning. For example, if 1a(z) (blood bag) was replaced with "infusion bag", it would be confusing for the reader.

Picture 1b, written narrative, about the importance of social distancing, but people are asked to donate blood. “Because blood donation is safe” (red letter). Illustration in the form of a person having blood drawn and flowing in a blood bag.

In Picture 1c, a narrative about the moment the mother gave birth. "Blood is needed in childbirth" (red color). Illustration of a sleeping baby with a tube filled with blood. Picture 1d, a narrative about an unexpected accident. "Blood urgently needed for medical treatment" (red letter) with illustration of colliding cars. Picture 6e, the narrative contains several critical situations that require blood such as thalassemia, bleeding fever, cancer, and kidney disorders. "Blood for Survival" (red letter). Similar to Picture 1a, the binary-opposition principle also applies to Picture 1(b), Picture 1(c), Picture 1(d), and Picture 1(e) (see Table 2)
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Table 2. The Paradigmatic-syntagmatic principle in picture 1

<table>
<thead>
<tr>
<th>Picture</th>
<th>Narration</th>
<th>Illustration</th>
</tr>
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<tbody>
<tr>
<td>1a</td>
<td>Keep your distance 1a(x)</td>
<td>Blood stock down 70% 1a(y)</td>
</tr>
<tr>
<td>1b</td>
<td>Keep your distance 1b(x)</td>
<td>Safe blood donation 1b(y)</td>
</tr>
<tr>
<td>1c</td>
<td>Mother gives birth 1c(x)</td>
<td>Blood urgently needed 1c(y)</td>
</tr>
<tr>
<td>1d</td>
<td>Accident 1d(x)</td>
<td>Blood for medical procedures 1d(y)</td>
</tr>
<tr>
<td>1e</td>
<td>Critical situation 1e(x)</td>
<td>Blood for life 1e(y)</td>
</tr>
</tbody>
</table>

Source: Results of Data Analysis

In Picture 2, it can be examined from two parts, namely the upper area with a yellow color (Picture 2a) and the bottom area with a red background (Picture 2b). The bottom area is divided into three boxes (from left to right), namely boxes 2b(x), 2b(y), and 2b(z). Box 2b(x) contains the narrative: “there is no evidence that blood donors transmit the virus” with an illustration of a patient lying down and having blood drawn.

Next, each unit is assembled sequentially with 1b(x) on the left, then 2b(y) in the middle and 2b(z) on the right. With the process of placing each box that has been selected and assembled with other boxes into a message following the syntagmatic axis so that it becomes a series or combination of “chains”.

In Picture 2b, it can be seen that the narration in the three boxes contains variations on ideas. Picture 2b(x) short narrative contains one idea, namely “blood donors do not transmit the virus”. Picture 2b(y) short narrative contains two ideas, namely “healthy people” and “screening test”. For Picture 2b(z), there is one idea, namely “enforce medical procedures”.

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Table 3. Explanation of picture 2a and picture 2b

<table>
<thead>
<tr>
<th>Picture 2a</th>
<th>Narration</th>
<th>Illustration</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>DONATING BLOOD IS SAFE (title)</td>
<td>-</td>
<td>Donating Blood is Safe (red color)</td>
<td>Still Need Blood (red color)</td>
</tr>
<tr>
<td>The patient needs blood (left)</td>
<td>-</td>
<td></td>
<td>Donating The blood is safe (red color)</td>
</tr>
<tr>
<td>Don’t be afraid blood donation is safe (right)</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture 2b(x)</td>
<td>Blood donation does not cause viruses</td>
<td>Person</td>
<td>-</td>
</tr>
<tr>
<td>Picture 2b(y)</td>
<td>The blood donation process passes a screening test</td>
<td>Person</td>
<td>-</td>
</tr>
<tr>
<td>Picture 2b(z)</td>
<td>The process of blood donation goes through a strict procedure</td>
<td>The officer conducts a laboratory check</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: @pemikotabogor

2. Discussion

The five squares in Picture 1 (named Picture 1a, 1b, 1c, 1d, and 1e) are arranged following the principles of binary-opposition based on the paradigmatic-syntagmatic axis. Binary-opposition principle applied both to the whole and to every element of the image, namely narrative and illustration.

The narrative in Picture 1a, contains two ideas, namely 1a(x) the enforcement of social distancing rules and 1a(y) blood stocks that have decreased by 70%. The narratives in 1a(x) and 1a(y) were born from a selection process following the paradigmatic axis. This pair of language units is accompanied by another illustration in the form of an incomplete blood bag 1a(z).

According to syntagmatic principles, the three image elements namely 1a(x), 1a(y), and 1a(z) are arranged according to meaning. If one is replaced with another sign that does not match, it can distort the meaning. For example, if 1a(z) (blood bag) was replaced with "infusion bag", it would be confusing for the reader. Likewise with the language units in Picture 1(b) Picture 1(c) Picture 1(d), and Picture 1(e) each of which applies the binary-opposition principle as. Through Picture 1, PMI expressed concern about the continuity of medical services for community members who getting health problems seriously, namely as thalassemia, bleeding fever, cancer, kidney disorders, and also surgery (signified). Treatment of these types of diseases and surgery was dependent on the availability of blood supply. Decrease in blood stock by 70%, reducing the chances of cure for patients with severe disease. On the other hand, community activity restriction policy making blood donation activities not easy to do. People are also bound by rules to stay at home.

This condition raises fears that PMI's blood supply will continue to decline. Not enough blood for patients can cause new problems in the field of public health services. So through Picture 1, PMI wants to convey critical conditions in blood supply. PMI hopes that people will be moved to come to health facilities to donate blood. Through illustration, PMI wants to stir the hearts and feelings of the public to help others through persuasive messages.

Through Picture 1, PMI has changed more public concern to increase its contribution in donating blood. The issue of blood transfusion safety is only mentioned in 1 picture. The issue of blood transfusion safety is more discussed in the next picture. In Picture 2, it can be examined from two parts, namely the upper area with a yellow color (Picture 2a) and the lower area with a red background (Picture 2b).

The upper area is divided into three boxes (from left to right), namely boxes 2b(x), 2b(y), and 2b(z). Box 2b(x) contains the narrative: "there is no evidence that blood donors transmit the virus" with an illustration of a patient lying down and having blood drawn. The yellow area (Picture 2a) contains the title “BLOOD DONOR IS SAFE” (signifier). This title can be interpreted as PMI’s effort to convince the public, so they don’t doubt the safety during blood donation (signified). Because, the Covid-19 pandemic has no clinical impact on the process of blood donation and transfusion, both donors and recipients of blood donors can remain healthy (signified). The title wants to dispel the general public opinion that blood donation during a pandemic can have an impact on health.

In Picture 2a above (yellow area), there is a short narrative under the title on the left and right. Each section is printed in capital letters and red. On the left it reads: “KEEP IN NEED OF BLOOD” and on the right it reads: “BLOOD DONOR IS SAFE” (repeats the main title).

Both narratives on the left and right can be viewed as signifiers. On the other hand, the two narrations also form their own meaning (signified). The phrase on the left is understood as an appeal to the public so that they continue to donate blood amidst the limitations of the pandemic. This call was conveyed starting
from the conditions faced by PMI which experienced a decrease in blood stock, due to restrictions on activities implemented by the government. The narration on the right is seen as (signified), with the meaning that emerges the same as the previous explanation regarding the title of the poster.

In Picture 2b (bottom, red area) it is arranged based on binary-opposition principles with syntagmatic-paradigmatic patterns. Boxes 2b(x), 2b(y), and 2b(z) are the result of selection (paradigmatic) with their respective narratives that have already been determined.

Box 2b(x) contains the statement: “there is no evidence that blood donors transmit the virus” with an illustration of a person lying down having their blood drawn (signifier). The main message in Box 2b(x) is that blood donation during a pandemic does not have a significant negative impact on health. PMI wants to emphasize that blood donors transmit the virus, this is an unfounded assumption.

Box 2b(y) forms the key message. This figure forms the “donor is healthy” and “signifier” key messages. PMI wants to show the public that they have implemented standardized and measurable steps during the blood transfusion process. In box 2b(z) the key message was the PMI's strong commitment to maintaining public health through blood donation by adhering to medical procedures (signified).

The suitability of the illustrations and narration in the three boxes cannot be separated from the sound image selection process on the paradigmatic axis. In box 4(b), for example, describes the safety aspects that have been emphasized in box 4(a), with two important steps, namely ensuring "donor health" and implementing "screening tests". The choice of the two key messages corresponds to the illustration of a donor who is being examined for his health.

From the selection process to the narratives and illustrations in each box (language unit), then they are combined with each other on the syntagmatic axis so that they become a series or combination of “chains” and form signs that can be understood by the public. In Picture 2, overall there is more emphasis or convincing the public that blood transfusions at PMI fully meet safety standards.

CONCLUSION

To overcome the critical situation, PMI conveyed a “humanitarian call” to the public through @pmikotabogor Instagram account. Restrictions on community activities during the Covid-19 pandemic have caused blood stocks to drop by 70%. PMI touched the hearts and feelings of the public to care about the condition of patients with severe disease and need blood donations. The "humanitarian call" was constructed from two main messages. First, for the public to increase participation in donating blood. Second, affirmation that the blood transfusion process is safe, does not negatively affect for health. The message is constructed through the concept of binary opposition where the selection and combination of language units was carried out following syntagmatic-paradigmatic principles.

This study focuses on attempts to analyze the construction of the meaning of “humanitarian call” in @pmikotabogor with semiotic analysis. Another strategic issue that is important for further study is how to reveal the factors that influence the effectiveness of PMI’s persuasive communication through social media. Whether the public's motive for donating blood is revealed or not can be used as a policy recommendation for decision makers in various institutions.

REFERENCES


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