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Liao, Yanlin; Niu, Zihan; Boogaart, Ronny; Garssen, Bart; Jansen, Henrike; Van Leeuwen, Maarten; ... ; Reuneker, Alex

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YANLIN LIAO & ZIHAN NIU

Department of Philosophy
Sun Yat-sen University
Guangzhou, China,
510275
alanliao9101@foxmail.com

ABSTRACT: This paper critically examines the ongoing debate concerning the existence of visual arguments and proposes a solution to this existential problem. Using the type-theory framework we introduce, the existential problem of visual arguments is discussed in two senses. Firstly, this paper argues that visual arguments exist while their existence is dynamism-based. Secondly, this paper argues that visual argumentation theory exists in the sense that it can expand argumentation theory in both descriptive and normative aspects.

KEY WORDS: multimodal, verbal argument, visual argument, $_{visual}$ argumentation theory

1. INTRODUCTION

Despite the substantial progress made in the field of visual argumentation since 1990s, an ongoing theoretical debate revolves around a fundamental question—the existence of "legitimate" visual arguments (e.g., Groarke, 1996; Birdsell & Groarke, 1996, 2007; Fleming, 1996; Johnson, 2003; Blair, 2012; Godden, 2013; Groarke, 2019). This issue, as described by Kjeldsen, is the "principal issue" in the study of visual argumentation (Kjeldsen, 2015, p. 116). While many scholars assume the existence of legitimate visual arguments and explore their functioning, doubts regarding their existence persist. Nevertheless, as Groarke notes, these doubts "have not stopped" the continued growth of the field (2019, p. 334). We contend that further clarification on this issue would be a significant benefit to the field of study. It could provide a clearer understanding of the logical position of visual arguments, thus establishing a more robust theoretical foundation for the analysis and evaluation of visual arguments, especially within the framework of informal logic.

The existential problem of visual arguments is usually discussed in two senses. First, it questions the existence of visual arguments as a type of argument: Do visual arguments exist? Second, it examines the existence of the theory of visual arguments. This paper addresses the existential problem of visual arguments within the framework mentioned above, which can be termed "the type-theory framework."

This paper aims to critically examine the existential dispute over visual arguments through the type-theory framework and present a more systematic and clearer account of the existential problem of visual arguments. In what follows, we will discuss the existential problem of visual argument as a type of argument in Section 2, and the existential problem of visual argumentation theory in Section 3. Section 4 will provide a summary and explore the implications of the clarification offered in this paper.

2. THE EXISTENTIAL PROBLEM OF VISUAL ARGUMENTS AS A TYPE OF ARGUMENT

As a common tool of persuasion in everyday life, there is no denying that visual images serve as a significant tool for persuasion. However, this paper is primarily concerned with a different question: Can we consider such persuasion to be potentially rational, or does it at least involve elements of rationality? In simpler terms, does the concept of visual argument hold ground?

To answer this question, we must clarify the concept of argument. A classic and widely quoted definition of argument is provided by O'Keefe (1982). He makes a distinction between "argument$_1$" and "argument$_2$," and defines these two types of argument (ibid.):

> I think that the everyday sense of "argument" (asargument$_2$) paradigmaticallyrefers simply to those cases in which extended overt disagreement occurs between interactions (p. 11).
>
> Thus my view is that paradigm cases of argument$_1$ are ones involving a linguistically explicable claim and one more linguistically explicable reasons (p. 17).

Given that the dispute of whether visual arguments exist is clearly unrelated to extended overt disagreements in interactions (argument$_2$), this paper focuses on argument$_1$ as the relevant criterion for the existence of visual arguments. According to Blair (2012, pp. 207-208), there are two important implications of the conception of argument$_1$: Firstly, argument$_1$ is propositional because claims and reasons must be propositions. Of course, to avoid unnecessary philosophical disputes, the term "propositional" here should be understood in a broad sense if the claims and reasons can be affirmed or rejected. It means that value judgments and norms of action are regarded as propositional. Secondly, argument$_2$ does not limit the argument to verbal arguments, but merely requires that both the reasons and the claims can be explicated in language. In other words, the medium of expression for an argument does not have to be language itself; it merely needs to be capable of translation into language.

We concur with Blair's analysis of O'Keefe's concept of argument$_1$. The above analysis suggests that O'Keefe's definition is suitable as a criterion for the existence of visual arguments. This is because: 1) This definition establishes a minimal criterion for the abstract concept of argument. As a basic form of rational persuasion, we contend that an argument inherently needs to exhibit objectively discernible clarity, implying that its premises and conclusions should be expressible through language at the very least. 2) Argument$_1$ does not presuppose that argument can only be expressed through language, thereby leaving a substantial theoretical space for the existence of non-linguistic forms of argument. Based on this, the existential problem of visual arguments as a type of argument lies in whether visual images can be translated into a set of verbal propositions. Some of these propositions would function as premises, while the rest would constitute the conclusion.

From the point of view of the communication practices of human societies, propositions are in fact expressed in a variety of forms other than language, including silence, signs or signals, facial expressions, and other body language (Blair, 2012, p. 209). This suggests that there is no compelling reason to consider language as the exclusively legitimate form of propositions. Furthermore, Blair provides examples of advertisements to illustrate that visual images (or propositions) can be translated into a set of verbal propositions that function as premises and a conclusion. For instance,

he asserts that the Benetton advertisement published in The New Yorker magazine (the issue of April 29 and May 6, 1996) constitutes a visual argument (p. 214):

Figure 1

Based on the relevant background information of figure 1, Blair (2012, p. 215) contends that the visual argument represented by the image can be constructed as follows: "Racism is a construct, not an inborn attitude; adults impose its ugliness on the innocence of children; therefore, racism is unjustified and should be ended."

Despite proponents pointing to numerous typical instances of visual arguments (such as the advertising case mentioned above), critics persist in raising significant questions about the existence of so-called visual arguments. This paper posits that two doubts of them are the most representative, which can be respectively labelled as "structural concerns (SC)" and "propositional concerns (PC)."

SC pertain to the difficulty of visual images in conveying the fundamental premise-conclusion structure of the argument. Fleming (1996) emphasizes that an argument requires a structure in which "conceptually distinct ideas can be sequentially linked," but a picture, by itself, cannot array ideas in the two-part conceptual structure of the argument (i.e., premise-conclusion structure). This is to say that, due to the lack of temporal syntax, visual images at best can express a proposition that serves as either a premise or a conclusion, but they struggle to distinctly express premises and conclusions. However, we do not think that SC is insurmountable. On one hand, it appears that Fleming primarily considers single or static visual images, overlooking the scenarios involving multiple or dynamic visual images. While a solitary or static visual image might only express a solitary proposition, a sequence of interrelated visual images (such as comics) or dynamic visual images (like animations) has the potential to convey the temporal succession of ideas, thus achieving the fundamental "premise-conclusion" structure. On the other hand, even if we consider only a single visual image, the basic "premise-conclusion" structure can be presented through enthymeme. For example, Figure 1 is also a single visual image, but it is still capable of expressing an enthymematic argument that contains an implicit conclusion. In other words, a single visual image can indeed express multiple propositions, with the understanding that certain propositions and the logical connections between them are expressed through enthymeme.

In contrast, PC appears to be more intractable. PC refers to the difficulty of explicitly translating visual images into verbal propositions. Despite proponents presenting a number of instances of visual argument (i.e., cases in which visual images are successfully translated into premises and conclusions), Johnson (2003) still maintains that such a translation process heavily relies on background knowledge. He thinks that the image by itself cannot "determine" the premises and the conclusion, as it is not hard to imagine that other possible conclusions might well be "implied" or

"suggested" by the same picture. Consequently, if someone lacks the relevant background knowledge about a specific image, it will be difficult for them to provide a translation that satisfies proponents of visual argument. Even as an advocate for the existence of visual arguments, Blair (2012, p. 210) concedes that there is a "systematic indeterminacy" about visual expression.

Do all visual expressions have such a systematic indeterminacy? Godden (2013) tries to find a determinate visual argument. He argues (pp. 1-2) that scholars often use eye-catching advertisements or cartoons as cases of visual arguments, but they are probably not legitimate visual arguments. On the contrary, legitimate visual arguments tend to be "much less interesting" and far rarer than proponents might believe—such as the Venn diagram in mathematics. He provides an example, stating that the following diagram clearly represents a valid syllogism: All M is P; Some S is M; Therefore, Some S is P.

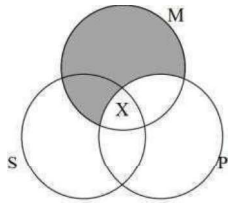

Figure 2

However, strictly speaking, we think that Godden's example is still not a visual argument, as Figure 2 merely represents a valid argument form rather than an argument. It is only after exemplifying this argument form (such as substituting M with "felines," P with "mammals," and S with "leopards") that we can say the Venn diagram represents an argument, and this exemplification process precisely requires the involvement of language. In other words, based on necessary assumptions (such as the interpreter understanding Venn diagram reading rules) and linguistic exemplification, some (not all) Venn diagrams can explicitly express a valid syllogism. Compared to advertisements or cartoons, Venn diagrams, if intended to convey arguments, similarly rely on language, albeit to a lesser degree. Now let us go back to the key question—do all visual expressions have such a systematic indeterminacy? Yes, just to varying degrees. Various types of visual images differ not in whether they rely on language, but rather in the extent to which they do so.

Crucially, is the systematic indeterminacy of visual expressions sufficient to make visual argument impossible? Regarding this question, Johnson (2003, pp. 10- 11) would likely provide an affirmative response. He emphasizes that in the process of constructing arguments, "most of the essential work" is accomplished by language rather than images. Therefore, visual arguments, according to him, do not exist. In contrast to Johnson, Blair (2012, p. 210), even though acknowledging that such systematic indeterminacy is likely to pose "formidable practical problems" for both arguers and audiences, believes that it does not make visual argument impossible "in principle."

The above dispute reveals that scholars have different understandings of the key term "visual arguments," or they are using this term in different senses. To resolve this controversy, we propose that visual arguments exist, but their existence is in a different sense from that of verbal arguments. Due to the relatively greater determinacy of meaning, the meanings of verbal propositions are relatively clear and determinate. Even if not initially determinate, individuals can make it clear through

language-based information (e.g., understanding contextual information or engaging in dialogue with the arguer). In this sense, this paper views the existence of verbal arguments as a determinacy-based existence. In contrast, due to the relatively greater indeterminacy of the meaning of images, the process of converting images into verbal propositions exhibits a significant level of flexibility. In this sense, this paper views the existence of visual arguments as a dynamism-based existence. This view can also be termed "dynamic existentialism of visual arguments."

In this regard, we need to clarify that: 1) We certainly do not deny the ambiguity of the meaning of language; we are merely emphasizing that, in general, the meaning of language tends to be more certain than those of images. 2) The terms "determinacy-based existence" and "dynamism-based existence" do not carry value judgments (i.e., they do not indicate superiority or inferiority); they are descriptive terms to characterize the respective traits of verbal and visual arguments. 3) The concept of dynamic existentialism regarding visual arguments does not suggest that the meanings of visual images are inherently impossible to clarify and determine. Instead, it emphasizes that the intrinsic flexibility of images makes the clarification process much more challenging compared to verbal arguments.

For the study on visual argumentation, dynamic existentialism of visual arguments offers the following theoretical advantages: 1) Critics of visual arguments often presuppose that the way verbal arguments exist (i.e., determinacy-based existence) is the only way arguments can exist. This viewpoint, however, reveals and rejects this presupposition, thereby creating room for the existence of visual arguments. 2) In terms of the determinacy of meaning, this viewpoint accepts and acknowledges the significant differences between visual images and language, thereby defusing the intense criticism raised by skeptics regarding the various interpretations of visual meaning.

3. THE EXISTENTIAL PROBLEM OF VISUAL ARGUMENTATION THEORY

According to the type-theory framework outlined in this paper, in addition to the existential problem of visual arguments as a type of argument discussed in the previous section, there is a need to assess the theoretical value of visual argument—is there a need for a theory of visual argumentation in addition to the current dominant theory of argumentation centered on verbal argumentation? In other words, does visual argumentation theory exist?

In general, a comprehensive theory of argumentation consists of two main parts: 1) a descriptive theory of argumentation, i.e., argument analysis, which involves a standardized reconstruction of an argument and an analysis of its logical structure; and 2) a normative theory of argumentation, i.e., argument evaluation, which involves an evaluation of the degree to which premises support conclusions. Given this, if there were to be a visual argumentation theory different from the current verbal argumentation theory, could it make a unique contribution in these areas? This paper will answer the question in terms of descriptive and normative dimensions respectively.

Concerning the descriptive aspect, verbal argumentation theory already possesses an array of advanced theoretical tools for reconstructing and analyzing arguments, including Toulmin's model, argumentation schemes theory, pragma-dialectics, argument structure diagrams, and so forth. However, does visual argumentation possess its own distinctive descriptive theory? Scholars have proposed

various theoretical tools for the descriptive analysis of visual arguments, such as a modified version of pragma-dialectical principles of communication (Birdsell & Groarke, 2007; Groarke, 2019), an extended version of key component table and diagram (Groarke, 2019), and some rhetorical tools (Kjeldsen, 2015).

Interestingly, Johnson (2003) contends that we do not need a theory of visual argument. He recognizes that interpreting the meaning of visual images is important, but that other theories (rather than argumentation theories) can offer more help with this, such as deconstruction, semiotic theories, message design theories, and so forth.

In our view, Johnson's comments hold an important implication: The interpretation of meaning in images has already been studied extensively by other disciplines, such as semiotic theories, painting, and film studies. When the interpretation of meaning is completed, and the meaning of an image becomes clear (i.e., it is expressed through verbal propositions), this is the point where argument analysis can come into play. At this stage, analysts deal with a set of verbal propositions that can be analyzed using traditional verbal argumentation theory. Consequently, visual argumentation theory encounters a dilemma: when the meaning of an image is undetermined, its analysis is carried out by other disciplines; when the meaning of an image is determined, its analysis aligns with the theory of verbal argumentation.

The solution to this dilemma, we argue, lies primarily in demonstrating that when the meaning of an image is determined, its study still requires the involvement of visual argumentation theory (rather than solely relying on verbal argumentation theory). We believe that this has been demonstrated through research on visual argumentation theory over the years. Groarke, for example, has made significant contributions in this regard. As mentioned earlier, Groarke developed an extended version of key component tables and diagrams to analyze the structure of visual arguments. While it is not the intention of this paper to delve into the details of Groarke's theory, it suggests the possibility of developing a specialized theory for the descriptive analysis of visual argumentation. However, it is worth noting that even if there is a specialized theory for visual argumentation (such as Groarke's work), this theory primarily makes adjustments or introduces new elements to the theory of verbal argumentation. In other words, visual argumentation theory is not an entirely new and independent theory but rather an expanded version of verbal argumentation theory.

In a similar vein, the normative aspect of visual argumentation theory faces an existential problem. In Godden's (2013) view, this is "the most important theoretical issue" of the debate over the existence of visual arguments. He (pp. 1-2) suggests that if the existence of visual arguments does not need to revise the normative standards of argumentation theory, then visual arguments are not normatively significant. This implies that the inquiry into the existence of visual arguments becomes less important. Furthermore, Godden thinks that "the rational quality" of arguments (i.e., "the probative qualities of reasons") does not demand any adjustments to the criteria for evaluation, as these standards remain constant regardless of the mode (way) of argument presentation, which is called "normative non-revisionism" in his paper.

It is important to note that Godden's concept of the rational quality of arguments is a formal-logical one, devoid of subjective elements. However, Godden's concept of the rational quality of arguments will probably encounter resistance from scholars and researchers in the fields of informal logic and argumentation theory. A conception of argument strength that is widely accepted by informal logicians was

introduced by Johnson and Blair (1994). To provide a logical evaluation of arguments, they state (p. 50):

> A logically good argument, as we shall use this term, is one whose premises supply strong grounds for any reasonable person to accept the conclusion.

Based on this, they raise a criterion for argument evaluation—RSA triangle. An argument must satisfy three different standards in order to be a good argument (1994, pp. 54-55): First, the premises must be relevant to the conclusion, which is the relevance test (R). Second, the premises must provide sufficient support for the conclusion, which is the sufficiency test (S). Third, the premises must be acceptable, which is the acceptability test (A).

While there are slight differences in their expressions (Johnson and Blair use "logically good argument," while Godden uses "rational quality of argument"), they are essentially discussing the strength of arguments within the rational dimension. In contrast, Godden's perspective only addresses a portion of the RSA triangle, focusing solely on relevance and sufficiency and neglecting the concept of acceptability. Acceptability test plays a crucial role in argument evaluation as it bridges the gap between propositions (reasons) and individuals (audiences). This test considers the subjectivity of the audience within the context of the argument.

We believe that the RSA triangle offers a more reasonable criterion for argument evaluation. Even if Godden's argument stands, it would primarily demonstrate that visual arguments may not significantly impact relevance and sufficiency. However, acceptability, which considers subjectivity of the audience, depends not only on the content of reasons but also on their presentation. Visual arguments can exert a notable influence in this regard. In visual arguments, the premises could be conveyed through visual propositions rather than verbal ones, and the mechanisms of acceptability for visual and verbal propositions differ. It is not difficult to imagine that the level of acceptability among people might not be entirely consistent between directly presenting an image and a verbal proposition that is transformed from an image (even if it is a successful transformation). In fact, the former is often more readily accepted due to its potent sensory impact. Nevertheless, current standards for assessing premise acceptability are primarily rooted in verbal propositions. For instance, Freeman (2005) and Govier (2013) outline various criteria for premise acceptability, such as true premises, presumed premises, premises supported by a cogent sub-argument, premises supported elsewhere, and premises known a priori to be true. These criteria do not adequately accommodate the traits of visual images and propositions. By integrating insights from disciplines like communication studies, semiotics, visual rhetoric, and others, it may be possible to formulate assessment criteria for the acceptability of visual images and propositions. In this regard, visual argumentation theory could make a distinctive contribution to the acceptability standard, thus enriching argumentation theory in the normative dimension.

4. CONCLUSION

The main ambition of this paper is to critically examine the ongoing debate regarding the existence of visual arguments and to propose a solution to this existential problem. According to the type-theory framework we have introduced, the existential problem of visual arguments has been discussed in two senses.

First, concerning the existential problem of visual arguments as a type of argument, we has addressed two of the most notable concerns: structural concerns (SC) and propositional concerns (PC). Building upon these considerations, we have argued that visual arguments indeed exist, albeit with a dynamism-based existence, which we term dynamic existentialism. In comparison to the determinacy-based existence of verbal arguments, the dynamic existentialism of visual arguments underscores the intrinsic flexibility of interpretation the meaning of images.

Second, in relation to the existential problem of visual argumentation theory, we has argued that visual argumentation theory can offer distinctive contributions to both the descriptive and normative aspects of argumentation theory. Visual argumentation theory exists in the sense that it can expand upon the framework of verbal argumentation theory.

We believe that the exploration of the existence of visual arguments in this paper serves as a facilitator rather than an obstruction to the study of visual argumentation. On one hand, the concept of dynamic existentialism provides researchers with a clearer understanding of the logical status of visual arguments, indicating that logical theories and tools can be employed for analysis, albeit not entirely identical in specific methods to the analysis of verbal arguments. On the other hand, the theory of visual argumentation, by expanding the verbal argumentation theory, helps researchers to better comprehend the strengths and limitations of this theory, and may even spark more interesting research directions.

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