

*M. Elaine Botha*

---

# Analogical grounding of figurative language: narrative and metaphor and the rhetoric of inquiry

First submission: 18 October 2010

Acceptance: 25 February 2011

Storytelling requires clear qualification of context if it is to provide solid knowledge. Combining storytelling or narrative with scientific discourse is to some extent incongruous. Stories and narratives thrive on the concrete and often particular experiences of human beings whereas theorising is characterised by abstraction aimed at identifying the laws underlying the regularities observed in reality. Although stories often deal with the individual and particular, the knowledge contained in them refers to classes of phenomena, not to unique individuals. The secret to understanding the prevalence of metaphor in narrative and storytelling is located in the fact that metaphor discloses *par excellence* the ontic and ontological classifications in reality. It lies at the root of descriptive classification, meaning change and meaning transfer and is grounded in the analogies revealed by the metaphor.

## Analogiese begroning van figuurlike taalgebruik: narratief en metafoer en die retoriek van ondersoek

Die narratiewe benadering wat tans in talle wetenskappe opgang maak, vereis 'n deeglike kwalifikasie van konteks indien die kennis wat daarin ter sprake is as betroubare kennis gereken moet word. Die kombinasie van storievertelling en wetenskaplike teorieë is tot op sekere hoogte inkongruent omdat wetenskaplike teorieë per definisie werk met abstrakte en universele kennis terwyl stories handel oor die partikuliere en individuele gebeure of verskynsels. Metafoer en analogie speel in beide voorwetenskaplike storievertelling en wetenskaplike betoog 'n belangrike rol. Dit berus of appelleer op die grondliggende klassifikasie en kategorisering van die werklikheid wat juis in die proses van artikulering van die klassifikasies en kategorieë openbaar gemaak word. In hierdie proses speel analogieë 'n belangrike rol.

*Prof M E Botha, Research Fellow, School of Philosophy, North-West University, Private Bag X6001, Potchefstroom 2520; E-mail: elainebotha@gmail.com*



*Acta Academica*  
2011 43(2): 66-81  
ISSN 0587-2405  
© UV/UFS  
<<http://www.ufs.ac.za/ActaAcademica>>

SUN MØDIA  
BLOEMFONTEIN

**N**arration or storytelling has become one of the recognised methodologies in a vast number of disciplines (Hauerwas & Jones 1989). One could argue that this is partially a reaction to the fact that storytelling as methodology was neither typical of modernity nor encouraged by the sterile style of theorising dictated by the received view of scientific theories (*cf* Russell & Whitehead's "P-M-ese"). On the other hand, there exists a long tradition of recognition of the role of rhetoric in pre-theoretical and theoretical accounts of reality (Gross 1990, Simons 1990). In addition, there is the recent renaissance of metaphor studies based on the recognition of the pervasive presence of metaphor in a diversity of forms of discourse and the cognitive claims of metaphor.

What does narration achieve that differs from scientific accounts of the same phenomena? What role does metaphor play in both forms of enquiry? Obviously the context within which narrative functions provides a partial answer to the question. Narrative theology and narrative ethics will differ from narratology as psychotherapeutic endeavour. These forms of (theoretical) narration will also differ fundamentally from storytelling in everyday situations. Common to all these instances is the belief that narration in any form is a respectable methodology that provides reliable knowledge. I would like to argue that narrative and storytelling is only a valid methodology if it clearly defines the context in which it is stating knowledge claims. For the purposes of this article the discussion will be restricted to the more generic use of "narrative" as it presents itself across the disciplines.

## 1. Stories and categories

Storytelling *per se* requires clear qualification of context if it is to provide solid knowledge. What is "solid knowledge" when told in narrative form? Even when the contexts are apparent the question still remains as to what extent the knowledge claims in the narrative are acceptable and trustworthy. The truth of a children's story or the reliable truth of the story told by witnesses in court clearly require the application of norms according to

the differentiated contexts. Combining storytelling or narrative with scientific discourse is to some extent incongruous. Stories and narratives thrive on the concrete and often particular experiences of human beings whereas theorising is characterised by abstraction aimed at identifying the laws underlying the regularities observed in reality (*cf* Van Riessen 1970: 77). Philip Lewin (1994: 36) argues that in both dimensions storytelling exceeds the apparent boundaries of the manifest and scientific image of the world (Sellars 1963). Lewin (1994: 35) perceives this view as translation:

In scientific theorizing there is a translation or retelling from our lived-experience of everyday reality to a level of theoretical explanation.

Tales told by theoreticians intend to provide some explanatory function regarding the laws governing reality. Although stories often deal with the individual and particular, the knowledge contained in them refers to classes of phenomena, not to unique individuals. Lewin (1994: 44) mentions:

Indeed the inferences we draw about particular things in the world derive from the knowledge we possess about classes to which we believe particular things belong. Categorization formalizes this process of analogizing by ostensibly providing criteria in terms of which particulars can be identified.

Lewin's argument provides support for the thesis that all language is metaphorical argued by Mary Hesse (1983) and others. The view that all language is metaphorical is set against the background of the rejection of the so-called "double language thesis", which implies that there are two kinds of language, literal and metaphorical language.

## 2. Are narratives metaphorical?

The defence of the statement that all language is metaphorical assumes a view of language in which meaning is attributed to sentences-in-con(text) and not only to single words (*cf* the position of Van Woudenberg 1998). This view is also held by

Ricoeur (1977). The growing interest in the acquired cognitive status of metaphor has indeed contributed to the common bases that provide the link between narration, everyday experience and scientific theorising. It is obvious that, if metaphor were only a figure of speech with no cognitive import, it would not play a decisively cognitive role in scientific knowledge acquisition. According to Franke (2000: 137-8), metaphor has tended to become the name for figurative language in general and even emblematic of rhetoricity as such:

The extension of the concept of metaphor is bound up with a renewed view of figurative language in general as not only a substantive bearer of the content of discourse but also as ontologically constitutive of the world, as operative at the origins of things and their identities (Franke 2000: 138).

The statement that “all language is metaphorical” appears paradoxical as long as metaphor is defined as an exceptional instance of language, intelligible only by contrast to literal language. Franke (2000: 140) argues that this paradox can be overcome when the unforeseen possibility arises that “... the literal itself must be apprehended as metaphorical in its basic constitution”. This position echoes one formulated earlier by Mary Hesse (1988: 13) in which she states that all language including “... ordinary descriptive language” is metaphorical “... in the sense that its use of general terms implies a normative classification of the vastly various multiplicity of things.” The secret to understanding the prevalence of metaphor in narrative and storytelling is located in the fact that metaphor discloses *par excellence* the ontic and ontological classifications in reality. It lies at the root of descriptive classification, meaning change and meaning transfer. For this reason it is also operative in narrative and story. If this claim is true, the statement requires some indication of how metaphor differentiates in various contexts. For example, one would have to give some account as to the difference of metaphor in ordinary language, Bible narration, parables, personal anecdotes, the specific sciences and philosophy. In addition, this statement requires some account of the differentiation between literal and

non-literal language in various contexts. In narratives metaphors are as much part of the structure of the language as it is in other forms of discourse. Aside from this role of metaphor, narratives are often structured on the basis of some overarching metaphor or myth so that the vocabulary becomes inflected with the meaning symbolised by the guiding or root metaphor.

### 3. Diverse forms of narrative

Although narrative is present in a diversity of contexts, the quality of the knowledge (Lewin 1994: 36) of everyday lived experience and of scientific theorising is fundamentally different. Both forms of narration are attempts at giving some account of the categorisation of the world as experienced or explained. In both instances the knower is socialised in a community with its own unique understanding and rendering of the world and thus also its own “story” of how the world is constituted. This holds, too, for the local disciplinary communities that practise science (Lewin 1994: 46). Referring to theoretical narratives and their classification and categorisation of the world, Mary Hesse speaks of “the way the world is parceled up” (Rorty 1987: 311). Narrative not only takes place on the basis of some existing form of categorisation but also attempts to rewrite the narrative concerning the existing categorisation, albeit discipline-specific or specific to an everyday event. In the case of science this also leads to a re-categorising of the conceptual metaphors central to a specific theory. These are closely bound to the “founding assumptions” (Lewin 1994: 39) and paradigmatic beliefs and practices of a specific disciplinary community. In science, Lewin (1994: 39) argues that these presuppositions serve a role analogous to the structures of stories “they provide the conventions and constraints within which [...]” activities being examined take place. Lewin (1994: 47) argues that the majority of the categories are created to reflect human prerogatives and are not pre-existent wholes “ready made to be found in nature”.

The argument thus far may give the impression that narrative and story are both the source and the articulation of the basic levels of human experience. This is not the case. Narrative rests on and appeals to basic levels of order common to all human experience. Lewin (1994: 40) appeals to Heidegger's thinking concerning primordial horizons of possibility for experience in order to relate fundamental ontology and narrative structuring. He argues that

... there is an even more basic level to human experience, a level prior to that of the ontic structuring of particular theories, which is concerned with the conditions under which experience is possible.

#### 4. The grammar of creation?

At the root of both the theoretical enterprise and everyday knowledge is the approximation of the laws and structures that govern the world. In everyday language this is not done explicitly; it is assumed that life, the world and our knowledge rest upon law-like regularities. They are the basis of our classification and categorisation of the world and our descriptive and explanatory narratives about the world. All language including metaphorical language rests on such a classification and categorisation. When this categorisation forms the basis of theorising, an abductive theory often appeals to one dimension or aspect of the category as potential explanatory variable. In this process a scientific community generates a large number of potential explanatory narratives. What are these categories and classifications based upon? In this instance, we return to "domain theory" to pursue the ontic level at the base of the diversity of narratives and metaphors.

The process of cross-domain mapping, which takes place when a new metaphor is introduced to the vocabulary of an existing disciplinary domain, influences the meaning of the basic concepts of a discipline. The transition from the Ptolemaic, geocentric to the heliocentric view of the world is a case in point (cf Kuhn 1973 and "paradigm shifts"). The basic terms sun, earth and planets all undergo meaning change as the result of this transition.

In any of the social sciences, for example, scientists can choose from a host of potential metaphors to describe a functional or dysfunctional family unit. They can, for example, use the metaphor of an organism, a mechanism or a system (*cf* Napier & Whitaker 1980) as their basic metaphor in terms of which they will describe the *explanandum*. The choice of explanatory metaphor leads to the development of a new vocabulary which is the result of the interaction between the alternative theoretical approach and the already existing discipline-specific meanings. With respect to the example of the “family unit” in Systems Theory the interaction between two aspects of reality results in subtle changes in the vocabulary used to diagnose the functionality of the family unit. The meaning of these concepts changes when the theoretical narrative in which it occurs changes. The basic concepts of a discipline are the vehicles of such meaning variance. In physics the terms “force” and “atoms” undergo changes of meaning against the background of the transition from a mechanistic to an organic interpretation of the nature of physical reality. In this transition the phenomenon of cross-domain mapping takes place.

Cross-domain mapping can be discerned on two distinct levels: the level of the juxtaposition of concrete entities “family” and “system” or “family” and “organism”, and the level of the meaning of basic analogical concepts conveying disciplinary and field-specific meaning (family dynamics, family unity, family growth). In the first instance, two entities are juxtaposed (family and a system or organism) and, in the second instance, a specific dimension of the meaning of the multivocal meaning of “system” is constitutively built into the meaning of the word “family”. Cross-domain mapping also requires a clear distinction between metaphor and analogy and a recognition of the fact that the term “domain” is used in two different senses.

Common to both metaphor and analogy is the presence of actual or purported resemblances-in-differences. In the case of a metaphor referring to concrete states of affairs (for example, “as poor as a church mouse”) the metaphor usually implies some form of analogy. On the abstract level of a modality of a concrete state of affairs such as “economic growth” another type of resemblance-in-difference operates.

In this instance, the use of an analogical concept is at stake, a concept combining the new meaning generated by an analogical relationship between two aspects or modalities of reality.

Metaphor indicates any statement or utterance which understands some concrete domain of human experience and reality in terms of another concrete domain of experience and reality. Statements such as “education is gardening”, “therapy is archaeological excavation”, “parental love is a never-ending stream”, or “the state is a system” are examples of metaphors relating two (concrete) entities, although some of these source or target domains are in fact considered “abstract” in the conventional sense of the word.

## 5. No homeless metaphors

Two kinds of “domains” should be distinguished: entitary domains (entities) and modal (modalities) or functional domains. An entity is not only a concrete physical entity but also any concrete integrated thing, fact, event, action or societal structure and relationship. An election, an earthquake or a psychotherapeutic counselling session are examples of such concrete entities. A metaphor is generally the lingual articulation of a juxtaposition of two concrete entities which harbour an analogy. But there is also a different meaning of the notion of an analogy.

An “analogy” in the sense in which it is used in this instance is a relationship between two facets, aspects or modalities of concrete entities. Not only is there an infinite number of potential analogies present in any such relationship, but some are already known as existing and recognisable analogical elements, whereas others are created in the course of the opening up of the potential analogies present in the semiotic radius of the domains in which the analogy occurs. Analogies of this kind indicate a relationship between aspects, facets or dimensions (also called “properties” or “irreducible kinds of functionality”, Hart 1984: 149) of concrete entities. Examples of such modal analogies are “economic growth”, “social distance”, “psychological stress”, “political movement”, “personal space”, and so on. Some metaphors touch on deeper ontological, orientational and

structural states of affairs and incorporate some form of an analogy which is also called a “basic” or “ontic” analogy. The basic analogies which “metaphors” of the second kind often uncover are embedded in and indicative of the structural irreducibility and coherence of the diversity of reality. These modal analogies are revealed in the elementary basic concepts of disciplines.

Sciences and academia cannot rid themselves of these metaphorical and analogical usages (Hart 1984: 153). Every analogical concept is “at home”, has an address (*cf* Brandt 2000 in a different context) or is original in a certain domain of reality and can be used in a non-original or analogical sense in all the other domains. There is no such thing as a “homeless” metaphor. The “grammar of creation” indicates the nature of the “homes” of metaphorical and narrative meaning. One could also choose a different metaphor and point to the “anchors” of meaning provided by the ontic domains.

## 6. The moorings of meaning

The methodology of metaphorical hermeneutics assumes an analogical structure to the world, human experience and cognition. This approach claims that metaphorical thought, images, language and models are able to access this structure of the world and mediate discovery and disclosure of the complex interrelated spheres of meaning of reality. This structure constitutes the “moorings” of metaphorical meaning and reference. It is a realist position – but a qualified realism. There is no doubt that such a claim will be disputed by many involved in the realism-anti-realism debates in philosophy of science, mainly because in the philosophical discussions realism is defined in diverse ways (*cf* Delaney 1985). Postmodernism questions any essentialist or foundationalist claims of knowledge and suspends the possibility of accessing reality beyond the interplay of texts and writing. The double-language view in which literal and metaphorical language is differentiated and juxtaposed often seeks the grounding or mooring of the meaning of the metaphorical concepts in some bedrock of literal meaning. Pan-metaphoricism, on the other hand, argues

that what is expressed can only be expressed metaphorically or is only accessible via metaphor. In general, these positions do not necessarily address the grounding or mooring of metaphors, nor do they necessarily have explicit positions on the cognitive status of metaphorical devices. It remains a contentious issue whether these metaphors have cognitive import, refer to states of affairs in reality and are constrained by the structure for reality. The critical background issue in this debate is what Bernstein (1983: 18, 19) calls the “Cartesian anxiety” which he identifies as the root or basis of the subjectivism-objectivism debate:

The primary reason why the agon between objectivists and relativists has become so intense today is the growing apprehension that there may be nothing – not God, reason, philosophy, science, or poetry – that answers to and satisfies our longing for ultimate constraints, for a stable and reliable rock upon which we can secure our thought and action.

Foundationalism and its critics have developed a wide arsenal of responses to this quest, each of which with a different answer to the question of the mooring or anchoring of metaphorical meaning. Answers range from reductionist positions that anchor metaphorical meaning in literal language to positions that seek the moorings of metaphorical meaning in social conventions and constructivist positions. Anti-realist positions often anchor meaning in some dimension of the subjective world, whereas realists argue that there is an objective and independent world that can be accessed. The realism espoused in this article argues for the real existence of conditions or structures for human existence, experience and reality. These structures condition not only cognition but also the empirical existence of all dimensions of reality, and act as ultimate constraints for human thought and action.

## 7. Embodied realism

Realism in everyday use of metaphor and in scientific realism associated with the implementation of theory-constitutive metaphors in scientific theorising has similarities but is also vastly

different. The differences in the cognitive import of metaphor are related to the widely divergent contexts in which they function. What is common to both everyday usage of metaphor and its use in science is the fact that it rests on human embodiment. Even more fundamental is the fact that human relational embodiment, in turn, is anchored in the “deeper grammar” of reality. This “grammar” is the stratification of reality and human life which precedes our articulation either in everyday language, narrative or in theoretical storytelling

Both Bernstein (1983) and Slingerland (2004) grapple with the nature of this stable and reliable foundation or common core of human existence. Slingerland (2004: 1-31) concludes that there is a position between Enlightenment realism and postmodern anti-realism and argues for an “... embodied realism in which the commonalities of human bodily experience can serve as a basis for cross-cultural commensurability” (Slingerland 2004: 1). When demonstrating the commonalities between Confucian and Western theories of morality Slingerland (2004: 16) states that:

... both these theoretical conceptions grow out of and make use of a deeper metaphysical grammar that has its roots in common human embodied experience.

He also calls this a common core. The crux of his argument is that these commonalities

... are not reflections of some a priori order existing independently of humans, but arise out of the interaction of human bodies with a fairly stable physical world over the course of both evolutionary and personal time [...] (Slingerland 2004: 17).

Against the anti-realists he would argue that there are structures of cognition common to all human beings regardless of their culture, language or a particular theory (Slingerland 2004: 17). He therefore chooses for embodied realism, a choice that I am willing to share but with a number of *caveats*.

The first *caveat* relates to a view of the creation order which acknowledges the reality of the basis of metaphorical meaning in human embodiment, but also recognises the structural traits of non-

human reality. The creation order exists as condition for human and non-human reality (in that sense it is “independent”) but also takes shape in and through human and non-human response to these conditions. Earlier (*cf* Botha 2007) I discussed the role of embodiment and the structures for creation that condition the existence of human embodiment. One important strand of this argument still needs to be teased out. I argued that Lakoff and Johnson’s suggestion of “embodied realism” is a more acceptable and responsible realistic view than the rationalistic realism, which hales from the Enlightenment. Yet, embodied realism as espoused by Lakoff and Johnson and their school of thought does not consider two dimensions in detail. The first is that human embodiment is conditioned and structured by even deeper layers of reality, as grammar would structure a language. Hart (1984: 82, 83) articulates a position that considers this: “... the thesis that the existing empirical world has an irreducible correlate in the order of {for?, MEB} the world”. He states that both individuality or particularity and universality are “real”, are mutually irreducible and correlative. This means that “... natural kinds, social order, norms for behaviour and laws are all real” (Hart 1984: 82) as are the particular phenomena in reality we designate as natural kinds, and so on. Used in this sense the term “realism” acquires a different meaning to the standard meaning found in most literature on the subject.

With respect to realism in science, theories based on metaphorical models and tested in and corroborated in confrontation with empirical reality provide a realistic approximation of reality. This choice is made in contrast with the position of instrumentalism, which argues that metaphors are merely heuristic devices utilised for purposes of discovery. It is also a position which is critical of anti-realism, although Mary Hesse’s contributions to the discussions concerning realism have shaped my own understanding of the matter in many ways. Mary Hesse holds to an anti-realist or moderate realist position, mainly because of her rejection of the existence of universals, natural kinds and essences. I agree with her that the maintenance of a realist stance requires a rejection of the traditional (or absolute) theory of universals. Her network theory of meaning based on her

appropriation of Wittgenstein's family resemblance notion is closer to a modified view of natural kinds and universals that I find acceptable, but I do believe realism and scientific realism require some construal or reformulation of a theory of universals and natural kinds in order to escape the potentially relativistic consequences which an anti-realist position entails. Such a theory of universals requires the recognition that the underlying classificatory system on which metaphorical reference is based represents more than conventional, sociologically determined semantic reality. It requires a positive recognition of the presence and knowability of God's presence in and through his creation order.

George Steiner (1989: 3) states:

[...] any coherent understanding of what language is and how language performs, [...] any coherent account of the capacity of human speech to communicate meaning and feeling is, in the final analysis, underwritten by the assumption of God's presence.

He mentions that the wager on the meaning of meaning "is a wager on transcendence" (Steiner 1989: 4, 214). His "conjecture is that 'God' is, not because our grammar is outworn; but that grammar lives and generates worlds because there is a wager on God" (Steiner 1989: 4).

And this wager is "on the informing presence in the semantic markers which generates" all kinds of works of art:

They are re-enactments, reincarnations via spiritual and technical means of that which human questioning, solitude, inventiveness, apprehension of time and of death can intuit of the fiat of creation, out of which, inexplicably, have come the self and the world into which we are cast (Steiner 1989: 215).

Elsewhere Steiner (2001) speaks of the "grammars of creation".

The relationship of either pre-theoretical or scientific narrative to this order differs because the everyday storyteller assumes the presence of this order, whereas the theoretician attempts to make the nature of this order explicit in the process of academic storytelling. One could argue that "knowing God" and "knowing his order for his creation" are two different matters and that even if one were to concede the knowability of God through his presence in his creation,

the order for creation still remains far beyond our theoretical grasp and can only be approximated. That being the case, I believe that realism defined as the recognition of the existence of such a creation order which we approximate *inter alia* with metaphorical models, is still a position preferable to anti-realism. A realist position constitutes a bulwark against relativism. In the inextricable correlation between the *fiat* or grammar of creation and our human articulation of this grammar via metaphor, analogy and narrative, the mooring of metaphorical meaning becomes apparent.

## Bibliography

BERNSTEIN R

1983. *Beyond objectivism and relativism: science, hermeneutics and praxis*. Philadelphia, PA: University of Pennsylvania Press.

BOTHA M E

2007. *Metaphor and its moorings. Studies in the grounding of metaphorical meaning*. Bern: Peter Lang.

BRANDT PER AAGE

2000. The architecture of semantic domains: a grounding hypothesis in cognitive semiotics. *Revista Portuguesa de Humanidades* 4(1-2), 2: 33-67. Faculdade de Filosofia da UCP, Braga.

DELANEY C

1985. Presidential address: Beyond realism and anti-realism. *Realism: proceedings of the American Catholic Philosophical Association*. Notre Dame, IN: Philosophy Documentation Center.

FRANKE W

2000. Metaphor and the making of sense. The contemporary metaphor renaissance. *Philosophy and Rhetoric* 33(2): 137-53.

GROSS A

1990. *The rhetoric of science*. Cambridge, MA: Harvard University Press.

HART H

1984. *Understanding our world. An integral ontology*. Lanham, MD: University Press of America.

HAUERWAS S & L GREGORY JONES (eds)

1989. *Why narrative? Readings in narrative theology*. Grand Rapids, MI: Eerdmans.

HESSE M

1983. The cognitive claims of metaphor. Van Noppen (ed) 1983: 27-45.

1988 The cognitive claims of metaphor. *The Journal of Speculative Philosophy* 2(1):1-18.

KUHN T

1973. *The structure of scientific revolutions*. 2nd enlarged ed. Chicago: University of Chicago Press.

LEWIN P

1994. Categorization and the narrative structure of science. *Philosophy and Rhetoric* 27(1): 35-62.

NAPIER A & C A WHITAKER

1980. *The family crucible*. New York: Bantam Books.

RICOEUR P

1977. *The rule of metaphor: multi-disciplinary studies in the creation of meaning in language*. Toronto: University of Toronto Press.

Botha/Analogical grounding of figurative language

RORTY R

1987. Unfamiliar noises: Hesse and Davidson metaphor. *Proceedings of the Aristotelian Society* 61: 296-311.

SELLARS W

1963. Philosophy and the scientific image of man. *Science, perception and reality*. London: Routledge and Kegan Paul: 1-40.

SIMONS H W(ed)

1990. *The rhetorical turn. Invention and persuasion in the conduct of inquiry*. Chicago: University of Chicago Press.

SLINGERLAND E

2004. Conceptual metaphor theory as methodology for comparative religion. *Journal of the American Academy of Religion* 74(1): 1-31.

STEINER G

1989. *Real presences*. Chicago: University of Chicago Press.

2001. *Grammars of creation: originating in the Gifford Lectures for 1990*. London: Faber & Faber.

VAN NOPPEN J-P (ed)

1983. *Metaphor and religion. Theolinguistics 2*. Studiereeks TUB, Nieuwe Serie, 12. Brussel: Vrije Universiteit Brussels.

VAN RIESSEN H

1970. *Wijsbegeerte*. Kampen: J H Kok.

VAN WOUDEBERG R

1998. Panmetaphoricism examined. *Philosophy and Rhetoric* 31(4): 231-47.