LITR 328: Folktales and Fairy Tales
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By submitting this essay, I attest that it is my own work, completed in accordance with University regulations. — Austin Theroux

The Selfish Motif: Bridging Folklore and Evolutionary Theory with a Motif-Centered Approach

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Abstract

The application of meme theory, the study of replicating units of cultural information analogous to genes, to folkloristics has transformed the field, paving the way for a new perspective on the folktale rich for further research. Yet, past and contemporary analyses primarily base their research on the folktale itself as a meme. In this essay, I place evolutionary and folklore theory in dialogue to argue that a motif- rather than folktale-centered framework yields novel insights on the nature of folklore and provides a mechanism for folktale evolution through motif selection. I first establish the motif as a meme, then show how a process analogous to natural selection, the fundamental process underlying evolution, acts directly on motifs in both oral and written literature. I conclude with a case study of “The Three Bears” using a motif-centered analysis, demonstrating how such a framework can present as a useful tool in deducing the historical and literary behavior of folklore.

I. Background: The Folktale as a Meme

Coined by evolutionary biologist Richard Dawkins in his 1976 book, *The Selfish Gene*, a meme represents a cultural unit of information spread by imitation. Memes self-replicate, transmitted through various systems including speech, writing, gestures, behaviors, or any other imitable form of communication. By this definition, warfare, the use of fire, alphabets, and

fashion styles are all examples of memes. Dawkins conceived the meme as analogous to his "selfish gene" (Dawkins, *The Selfish Gene* 189-201). The "selfish gene" theory is a gene-centric reframing of evolution whereby genes are the primary target of natural selection with organisms serving as mere vehicles for the genes' ultimate goal of replication (Dawkins, *The Selfish Gene* 12-20). Cambridge neuropsychologist N.K. Humphrey describes memes "as living structures, not just metaphorically" and holds that memes "physically resid[e] in the brain" (Dawkins, *The Extended Phenotype* 109). Thus, memes, carrying cultural rather than genetic information, use humans as vehicles for their self-replication.

The classification of folktales as memes spurred the burgeoning field of folklore memetics, which has in recent years enabled the application of biological concepts to folkloristics. The use of memetics in folklore was first proposed by Kenneth Pimple in his 1996 paper "The Meme-ing of Folklore" (Pimple 236). Since then, great strides have been made to blend the fields of biology and folklore. In 2013, University of Durham professor Jamie Tehrani utilized phylogenetic computational analysis to reconstruct and quantitatively resolve relationships between different variants of the tales "Little Red Riding Hood" and "The Wolf and the Kids". Tehrani's analysis assumes that folktales evolve like biological species, which is an applicable approximation based on a few shared features of folktales and organisms. First, folktales can replicate, creating a system of *inheritance*; for example, a mother tells her child a tale or a tale spreads from one society to another. Second, folktales feature (cultural, rather than genetic) *variation*. The presence of "oikotypes", regional variants of a certain tale type, exemplifies this property (Tehrani 4-6). Many phenomena contribute to this variation, including the concept of "broken telephone", or the simple changes in a tale made when repeating it which accumulate over time into meaningful variation, analogous to genetic mutations. Oikotypes are

adapted to their local cultural conditions, which demonstrates the third trait of *natural selection* in action: tales that spread the most will persist, while those that fail to do not. This requires folktales to *compete* like biological species for the optimal adaptation to the particular culture in which they exist.

When discussing a topic like the evolution of folktales, it is vital to convey that evolution has no end goal–it is simply the continual adaptation of organisms (folktales) to their (cultural) environment. Those better adapted to their environment will survive and reproduce more frequently, over time resulting in population changes favoring those best-adapted individuals. The theory of natural selection does *not* support schools of thought such as unilinear cultural evolution, which purports that all cultures (and organisms) are evolving toward some "superior" form. This type of thinking quickly devolves to prejudice and dangerous images of cultural superiority. Thus, in this paper, the term folktale *evolution* is interchangeable with folktale *adaptation*.

II. Introduction: Memetics and a Motif-Centered Analysis of Folklore

Applying memetics to folkloristics begs the question of the smallest, indivisible unit of a folktale and how it fits into an overarching theory of folktale evolution. If a folktale is a meme, are the motifs that make up the folktale memes as well? What about the characters or events that compose the motifs? Ultimately, it is infeasible to define and characterize such an "indivisible" unit of a folktale, otherwise known as a motif. Stith Thompson, the creator of the "Motif-Index of Folk-Literature", defines the motif as "the smallest element in a tale having a power to persist in tradition. In order to have this power it must have something unusual and striking about it" (Thompson 415). Unsurprisingly, this definition is vague. A precise characterization of the motif is irrelevant for the purposes of this paper; the goal of this paper is to present the *components* of

a folktale, rather than the folktale itself, as the drivers of folktale evolution and the target of natural selection on folktales. In this way, the motif requires no exact description–just that it is a subdivision of the folktale suffices.

A motif-centered synthesis of memetic folkloristics analogizes the motif as the "selfish gene" from Dawkins' framework and thus the folktale as the "vehicle" controlled by these genes. However, the folktale *also* functions as a meme, with the human host serving as a vehicle for its transmission. Therefore, the dynamics by which we apply meme theory to folktale theory are multifaceted: there exist multiple levels of "selfish" elements controlling some host. The motif-folktale gene-vehicle interface, however, is the smallest unit to consider and constitutes the focus of this paper. Conceptualizing how the motif promotes folktale evolution requires understanding how the motif functions as a currency of folktale change, the fundamental mechanism of evolution. On both oral and literary levels, the motif is the unit by which folktales change, and thus, their modification drives folktale evolution.

III. Narrative Change: Change on the Oral Level

Folktales as oral literature contribute to their evolution through narrative change–the ways that narrators modify (or do not modify) the tales they tell. Leza Uffer, a folklorist who researches Rätoroman narrators, classifies them under three types: (1) the passive narrator who knows the tales (perhaps from childhood) but does not usually tell them, (2) the occasional storyteller who knows tales and tells them occasionally as they heard them but makes no effort to change or create anything novel, or (3) the conscious storyteller who actively tells tales and improvises when they forget certain elements of the story (Degh 174). These classifications distinguish narrators on a level of how much they change the tales and how frequently they tell the tales. Thus, narrators are vital mediators of folktale transmission and change.

For active storytellers, those who most influence the spread and modification of folktales, swapping or directly changing motifs is an integral part of storytelling. Folklorist Linda Degh conducted longitudinal research on various narrators, tracking the change in their stories over time. For some tales "only the title remained intact–the story was so transformed…that it was hard to recognize it" (Degh 180). Other tales remained relatively stable, controlling for the natural variation that comes with storytelling multiple times. However, even for narrators faithful to their tales, some "omitted everything they could not remember", resulting in deletions of certain motifs that may have been less memorable (and thus less fit in the eyes of natural selection). Degh concludes that this "shows that the narrators dispose of a stock of stable and more variable *märchen* [fairy tale] themes" (180). Thus, there is variation on the motif level that determines whether some motifs end up altered or left stable, which is the basis of selection theory. Degh also writes that "the tale is altered mostly by the change in motifs" and that "using motifs that belong to the same trend of the thought but to different tale sketches actually sends the tale in a completely different direction, and a consequence can be the formation of a new type" (180-181**)**. Seemingly subtle motif variation can yield crucial differences in the folktale which alters how it is perceived by the audience and how well it spreads (i.e. the evolutionary fitness of the folktale).

A rich interplay between the audience's perception of a tale and the narrator's telling of a tale determines the selective landscape by which motifs are either changed, deleted, or conserved. Contemporary storyteller Cathryn Wellner describes this relationship:

> The real work and the real joy come when I tell the partially formed story to an audience for the first time. I used to nearly work a story to death before testing it on an audience. Now I lay the framework and then begin telling it. There are a few things with which I am comfortable at that point: I know the story line, the nature of the characters, essential details, places in which I want to use a chant or a song, and something of the culture. The audience teaches me what the story is about, and each audience teaches me something slightly different. Through their reactions, I see where the story takes wings and where it is earthbound. Eventually, after many tellings, the story takes a shape which I tend to return to each time. It

will always be fluid and unrepeatable. Sometimes an especially attuned audience will give me a moment of such clarity that I am stunned. The story becomes fresh and new. (Stone 264)

Wellner uses the audience's thoughts and reactions to her tales to inform how the tale changes. She removes or changes certain motifs based on what the audience "teaches" her, which results in the "fluid and unrepeatable" nature of the story. In particular, the "unrepeatable" stems from the fact that no folktale is the same once repeated due to variations in narrator presentation, wording, or some other unconscious change as seen in Degh's research. Storyteller Kay Stone recalls a time when the audience applauded before she finished her story, revealing a more natural endpoint to the story and inspiring her to end it earlier, deleting the motifs that followed. Then, at another time, an audience member questioned why a character had to go through so many transformations which led to Stone removing one of the transitions and simplifying the story (263). These serve as two processes by which the audience drives motif change and hence evolution of the story. The folktales thus adapt to each audience like an organism adapts to its environment, undergoing an act of selection targeted at the components of the tale.

IV. Literary Change

The transposition of oral folktales into widely-disseminated written literature also relies on the mechanisms of motif selection applicable to narrative change. Greek popular booklets present a clear example of this phenomenon in the literary record. Mass distribution of Greek popular literature began in 1845 when works of literature from Western Europe were translated into Greek, curating a "translated popular literature" (Moullas 116). This process undoubtedly came with selection: authors add, remove, or change certain motifs in translation. Indeed, comparisons between the Greek booklets and their French and German sources "demonstrate diverse results with reference to their adaptation and transformation in the popular booklets" (Kaliambou 54). These adaptations vary in their fidelity to the source; some are more liberal,

imbued with the author's own tastes and creativity, while others are more faithful to the source text.

Motif selection affects both styles of adaptation through an interplay of political and author-specific selectional preferences. The anonymous author of the popular Greek version of "Little Red Riding Hood" (ATU 333) "combines motifs and plots from both [the Grimm and Perrault] literary texts", two influential collections of fairy tales from Western Europe (Kaliambou 56). This demonstrates that translators are significant mediators of fairy tale evolution through the mixing and matching of various motifs and plot elements. Further, a later variant of the tale features Christmas holiday rituals and a Vlach (Greek minority group) heroine with a unique linguistic style and an ending reminiscent of crime novels popular at the time (56). On one hand, the author clearly injects this story with their personal literary propensities as found in the distinctive linguistic style and detective novel ending. However it is also vital to note that many of the story's motif elements have been modified (selected) to fit a Greek audience: the Vlach heroine, the atmosphere of Christmas and holiday rituals, and even the contemporarily popular ending are all characteristics unique to the intended audience. The author undertook a process of selection, sifting source texts through both their personal biases and their considerations to what would be best received by their audience. There is an evident parallelism to the rich interplay between narrator and audience in determining the evolution of the folktale; here too the audience plays a crucial role in influencing what motifs are prepared in a potential literary work.

Literature adapted with high fidelity depends on the same selectional processes as those freely adapted. Unlike "Red Riding Hood", the fairy tales of Hans Christian Andersen were faithfully translated in popular booklets (though not by Greek scholars who infused a

"pedagogical, moral, or national coloration" to them (57)). This was primarily due to the general admiration of Andersen by Greek society. Thanks to his fame, popular booklet authors held closely to the exact translation. In this way, the political audience (Greek society) selected for a lack of change. Andersen's tales already featured a high evolutionary fitness in the Greek literary environment, which led to a high conservation of its form and content. However, even Andersen's works were not free from acculturation. Andersen's tale "The Bell", for example, was translated faithfully except for a religious episode in which a child is confirmed, an unfamiliar ritual in Greece. In translation, the scene was deleted. Kaliambou calls this tale ""domesticated" to its new Greek environment" (57), alluding to the way in which it has evolutionarily adapted to what the Greek audience would recognize through the deletion of a motif with low "fitness". The case of Andersen's tales displays how tale evolution is mediated by an interplay between different selection pressures: on one hand, there is selection to conserve Andersen's core motifs due to popularity but pressure against motifs that have no relevance to the audience.

While translators play a vital role in the dissemination of written literature, folktale collectors such as the Brothers Grimm have been extremely influential in shaping the evolution of fairy tales, again through targeted selection and modification of motifs. In fact, W.H. Auden in 1944 asserted that the Grimm's tales are "among the few indispensable, common-property books upon which Western culture can be founded…[I]t is hardly too much to say that these tales rank next to the Bible in importance" (Haase 353). The Grimm's tales come in seven editions, each with various edits, additions, and deletions by the folktale collectors. The changes made over time reflect a selective filtering of motifs in line with a political agenda of the era and the

personal preferences of the Grimms. Ruth Bottigheimer writes about "Cinderella" (ATU 510A), "Hansel and Gretel" (ATU 327A), and "Our Lady's Child" (ATU 710):

> The first extant Grimm version (of "Cinderella") (1812) is a German-language carbon copy of Perrault's sparkling tale in which Cinderella joins in the general chat and herself suggests in the final scene that she be allowed to try on the shoe. Only a few years later (1819), she speaks hardly at all, while the wicked stepmother gives vent to the most horrid pronouncements in a set of shifts which equate female verbosity with wickedness. In "Hansel and Gretel" the father is steadily exonerated for his moral absence in edition after edition. In "Our Lady's Child" little Marienkind's sufferings increase in intensity as Wilhelm piles on adjectives to convey precisely how debased, exposed, and miserable she is in the forest, while at the same time he removes the fairy-tale golden trappings she had enjoyed in the earliest versions (Bottigheimer 197).

In just these few examples one observes a clear implementation of misogynistic elements, or "patriarchalization". Ironically, the Grimms also changed biological mothers into stepmothers so as not to disrespect their own mother (Zipes 114). These modifications to such a widespread and highly influential work of literature were directly mediated by the Grimm collectors who adapted motifs to both their own tastes as well as the patriarchal political background. Feminist or matrilineal tales thus featured lower evolutionary fitness in a patriarchal audience and at the hands of misogynistic editors. Beyond just the Grimms, "the patriarchalization of matrilineal tales led to the replacement of female protagonists and rituals celebrating the moon goddess by heroes and rites emphasizing male superiority" (Maass 4). Political institutions like the patriarchy are crucial for sculpting the social environment and thus the evolutionary landscape to which a meme adapts. While the tales' matriarchal motifs may have subsisted in the Grimms' informants' societies, once they were brought to a wider audience a shift in the environment resulted in selection pressure for their removal or modification.

Thus far, motifs have been established as the primary target of selection processes that drive folktale and fairy tale evolution both in the oral and literary records. The following section introduces what new insights are gleaned using a motif-centered evolutionary approach to

folkloristics with a case study of the "ecological" nature of the "The Three Bears" motif as it appears in several tales.

V. A Motif-Centered Memetic Analysis of "The Three Bears"

"The Three Bears" (or "Goldilocks and the Three Bears") ranks among the most famous English language fairy tales. Yet, it surprisingly lacks similarity to other Indo-European tales. According to folklorist Alan C. Elms, "The Three Bears" "does not resemble any of the standard tale-types, and includes no indexed folktale motifs". In fact, "it includes so few of the typical folktale elements identified by Propp that a standard morphological analysis of the tale would be virtually meaningless" (Elms 257). Its enigmatic nature is exacerbated by an even more enigmatic literary history.

"The Three Bears" was assumed to originate from a single literary author for many years before new evidence surfaced to the contrary, complicating its history but suggesting it hails from oral tradition. In 1837, the tale was published by English poet Robert Southey who claimed its oral source was his uncle, though for years folklorists held that it was Southey's own creation. However "Scrapefoot", published in 1894 by Joseph Jacobs who collected it from an informant who "heard it from her mother over forty years ago", strongly resembled Southey's tale (Elms 258). Later, a handwritten version dated 1831 surfaced by Eleanor Mure, titled "The Story of the Three Bears" and described by Mure as "the celebrated nursery tale of the THREE BEARS put into verse" (Mure 1). Mure's description of her verse indicates the tale was already famous in the oral tradition prior to her writing six years before Southey's publication. In 1967, Katherine Briggs identified a version published in 1884 with hobgoblins instead of bears in Charles Dickens' "Our Mutual Friend", which she suggests may feature "the trace of a very ancient story" (Briggs 56-57). Lastly, Mary Shamburger and Vera Lachmann put forth a potential

Norwegian tale as the source for much of Southey's work, however he may have also indirectly found the material in English oral literature (Shamburger and Lachmann 400-403). Given this, the elusive historical evidence of "The Three Bears" suggests it originates from oral tradition much before Robert Southey's publication.

Multiple instances of "The Three Bears" serving as a motif embedded in different folktales demonstrate another mechanism by which the "The Three Bears" replicates as a meme. In the Brothers Grimm 1812 version of "Snow White" (ATU 709), a scene appears where the protagonist, a young girl, stumbles upon the seven dwarves' home and finds seven seats at a table and seven beds. She eats food and drinks wine from each place at the table then samples each of the beds until falling asleep on the seventh. When the dwarves return, the following dialogue strikingly analogous to "The Three Bears" plays out:

The first one said, "Who has been sitting in my chair?"
The second one, "Who has been eating from my plate?"
The third one, "Who has been eating my bread?"
The fourth one, "Who has been eating my vegetables?"
The fifth one, "Who has been sticking with my fork?"
The sixth one, "Who has been cutting with my knife?"
The seventh one, "Who has been drinking from my mug?"
Then the first one said, "Who stepped on my bed?"
The second one, "And someone has been lying in my bed." (KHM 53)

The embedment of "The Three Bears" here is no isolated coincidence–the "tale-motif" has appeared in other Grimm stories ("The Three Ravens") and Grimm-independent tales ("The Bewitched Brothers"). In "The Three Ravens" (changed to "The Seven Ravens" (ATU 451)), a girl ventures to save her three brothers that were turned into ravens. At the castle they live in, she discovers three plates and cups that she eats and drinks from. The ravens return and each question in the familiar style, "Who ate from my little plate? Who ate from my little cup?" (KHM 25). Ultimately, the Grimms heavily edited the story and changed the name to "The Seven Ravens", though the original version containing "The Three Bears" motif is significant to note.

In the Romanian tale "The Bewitched Brothers" (ATU 451), the girl enters the eagle brothers' home and samples their food at the table, later prompting one of the eagles to exclaim "Halloo, someone must have been here, for I see that my food has been nibbled" (Gaster 231-235). These examples show that "The Three Bears" can function both as an independent tale and as a motif implanted in another tale, representing a unique lifestyle and mechanism of replication.

In a memetic analysis of "The Three Bears", analogies to biological and ecological concepts such as facultative parasites and mobile genetic elements help develop an understanding of the nature of the tale-motif. In Section I, folktale evolution was rooted in similarities to biological evolution, namely inheritance, variation, and natural selection. In biology, ecological interactions between species shape evolution by altering natural selection; thus, it is inferred that "ecological" interactions between motifs can also drive folktale evolution by altering selection processes described in previous sections.

One potential model to describe "The Three Bears" involves framing it as a facultative parasite, an organism that can subsist on its own but can resort to parasitic behavior. This model posits that the tale can both be told in isolation (which is confirmed to be true) but also engages in *parasitic* interactions with the tales it is embedded in. For parasitism to occur, the parasite must decrease the fitness of the host while increasing its own fitness. The latter component is simple to show as just the fact it replicates alongside replication of the host tale increases the tale-motif's fitness since it is being propagated more. Thus, "The Three Bears" can replicate on its own, but also as part of other tales, which is more advantageous to its dissemination than only existing in isolation. The difficulty lies in determining what effect the motif's addition has on the host tale, which can only be theorized. Jack Zipes claims that "brevity…certainly makes [folktales] more memorable as potential memes" (Zipes 72). If how short a tale is increases its

transmission rate and therefore its fitness, taking on a whole other tale could place strain on the host's fitness and set up grounds for a parasitic relationship.

On the other hand, the motif can also be modeled as a mutualistic mobile genetic element (MGE) that can self-replicate and co-replicate with the host but also confer a beneficial effect to the host. MGEs are short fragments of DNA that can move within an organism's genome or between the genomes of different organisms, replicating by their own specialized mechanisms (Frost et al. 722). A critical question for both biology and the tales discussed here is why the host keeps the mobile element in its genome (or motif inventory, in this case). For biology, often a MGE will include a gene for antibiotic resistance, for example, which makes it beneficial for the host (723). In a similar way, the addition of "The Three Bears"-like scenes in these host tales may increase the hosts' transmissibility, which quantifies a tale's memetic fitness. This is not an unreasonable claim since "The Three Bears" is already a competent enough meme to be told on its own, thus one may expect it to aid in the replication of a tale it is embedded in.

This case study exemplifies the power in harnessing biological concepts and memetic theory with a motif-centered approach. The actual role of "The Three Bears" and why it can replicate on its own and within other tales remain beyond the scope of this paper, yet just a simple consideration of motif-centrism and biology yields new insights on the potential nature of the tale-motif.

VI. Concluding Remark

Memetics has revolutionized the field of folkloristics, birthing a new field of study that regards the folktale as a cultural unit of analogously genetic information. However, most analyses solely focus on the folktale as the smallest unit of the meme. Considering the motif as the target of evolutionary processes shaping folklore gleans new and valuable perspectives on

folklore research through an integration of memetics and biology. Processes of selection on both an oral and literary scale primarily act on motifs, making them a crucial concept to study in evolutionary folkloristics. Further research using a motif-centered approach will help ameliorate the understanding of both meme theory itself and as it is applied to folklore.

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