

Two Technical Tools for Literary Criticism

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Abstract

Having as its starting point two technical tools belonging to TRIZ (The Theory of Inventive Problem Solving), this article illustrates the way in which they can be used with the purpose of approaching a literary text. The Multiscreen and the Su-Field Model are explained and illustrated and then applied to Muriel Spark's short-story, "The Portobello Road." The exercise of criticism covers large areas of classical interpretation and reveals multiple perspectives. Therefore it is safe to say that these, as well as other instruments belonging to the algorithm of TRIZ, can act as "third culture" tools, bridging the gap between the humanities and the sciences.

Key words TRIZ (The Theory of Inventive Problem Solving), the Multiscreen, the SU-Field Model, literary criticism

1. Introduction

TRIZ (The Theory of Inventive Problem Solving) was devised in the 1960s, in Soviet Russia, by Genrich Altshuller, originally with the purpose of obtaining breakthrough solutions to technical problems and thus facilitating the emergence of inventions on a regular basis. ARIZ, the algorithm of the inventing process, was the necessary consequence of the theoretical revolution brought about by the concepts of TRIZ. ARIZ is a step by step process which, eliminating the annoyance of repeated failures, the trial and error method, psychological barriers, and the long intervals spent waiting for moments of illumination, guides the inventor directly towards finding the appropriate solution. More importantly, ARIZ contains tools which have proved their efficiency in critically approaching a literary text (Coșer 2011, also Mann 2006, and Moldaver 2002). Thinking and creativity are still necessary both in the case of technology and literature since the tools do not offer either solutions or critical judgments; they just point to the best directions along which the researcher can start building his ideal solutions.

This article illustrates the way in which two of the ARIZ tools, the Multiscreen and the Su-Field Model, can be used to approach Muriel Spark's 1995 short-story, "The Portobello Road."

2. Introducing the tools

The Multiscreen is a tool originally devised as a model for the evolution of technical systems. It is a tool that broadens the mind since it allows the user to have a complex and dynamic, three-dimensional representation of the world. If we accept to consider that all "objects" (people, things, ideas, etc.) belonging to the world around us are "systems" endowed with a primary function and multiple secondary functions, then we become aware that all systems belong to a supersystem and are made up of subsystems. If we consider a "tree" as a system, then the "forest" it belongs to (or orchard, or biosphere) is the supersystem while its "branches" are the subsystem. When we think of the "branches" of a tree as being the system, then the "tree" becomes the supersystem and the "leaves" are the subsystem. This entire hierarchy exists along a time line and can be represented as a nine-screen model. However, each system has an anti-system with an opposite primary function, which is counteracting the primary function of the system. Therefore the Multiscreen representation of the world consists of eighteen screens, as in the diagram below. TRIZ experts are able to visualize any system in its hierarchical (vertical) and temporal (horizontal) structures and thus they have an exceptionally dynamic perception of the world.

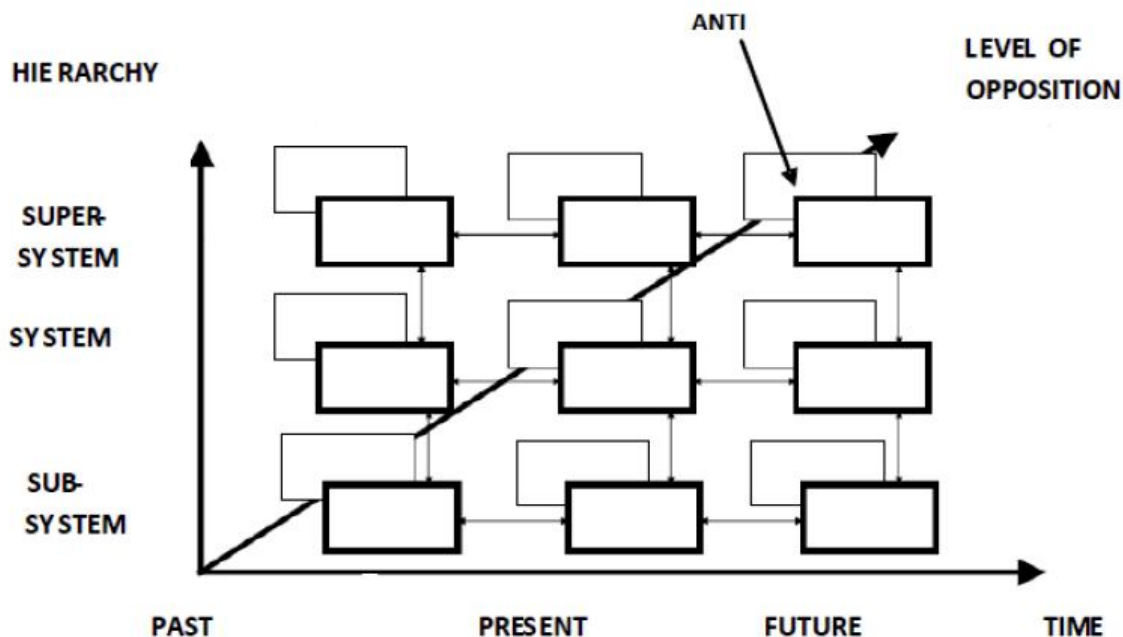


Figure 1. Multiscreen model of an evolving technical system in classical TRIZ (Khomenko, 2007)

When it comes to literature, the Multiscreen alone could take over the methodology envisaged by several other historically determined critical trends. In its most straightforward application, it can be used to follow the storyline, as illustrated in two of Daphne du Maurier's short-stories below, where the anti-systems are not represented since they are not relevant for the stories.

In "The Birds," people living on the coast are attacked, for several days in a row, by an unusual number of birds. At the beginning, they attribute this to the sudden change in the weather, announcing the arrival of winter. But after seagulls, birds of prey, and even small birds turn against the population, a national emergency is declared on the radio. The reader is let to understand that everybody has died in the village. The main character, farmhand Nat Hocken and his family shut themselves in the house and Nat is preparing to smoke his last cigarette while awaiting for the birds' next attack. The story line is very simple: everything happens in the present, at the level of the subsystem (Nat), and the system (his fellow villagers). Britain, which could act as the Supersystem, is only mentioned as being besieged by the birds. So the screens are covered vertically. In "Not After Midnight," a lonely teacher tells about events that strongly marked him while he was enjoying a painting holiday in Crete. Thus the story starts in the Present Screen of the Subsystem and moves only one screen back.

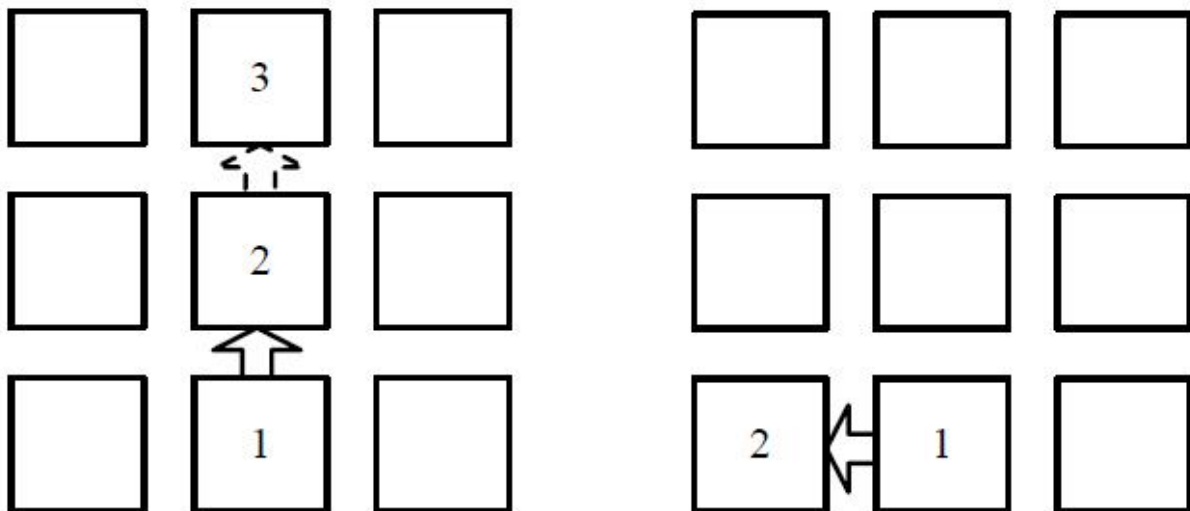


Figure 2. Multiscreen models for "The Birds" (left) and "Not After Midnight" (right)

There are authors whose works cover many more of the screens: for example, Philip K. Dick, in *Time Out of Joint*, leaves only two screens uncovered while in *Ubik*, ten of the screens are used, as the diagram below shows. The Multiscreen can also be telling of the type of movement engaged between the screens, the static or the dynamic quality of a work. As shown below, in *Ubik* the idea of a time continuum is illustrated, a permanent shift from the present to the future and then to the past again, due to the all intrusive entropy which invades the characters' lives and the whole world, eating up the lineal order of time.

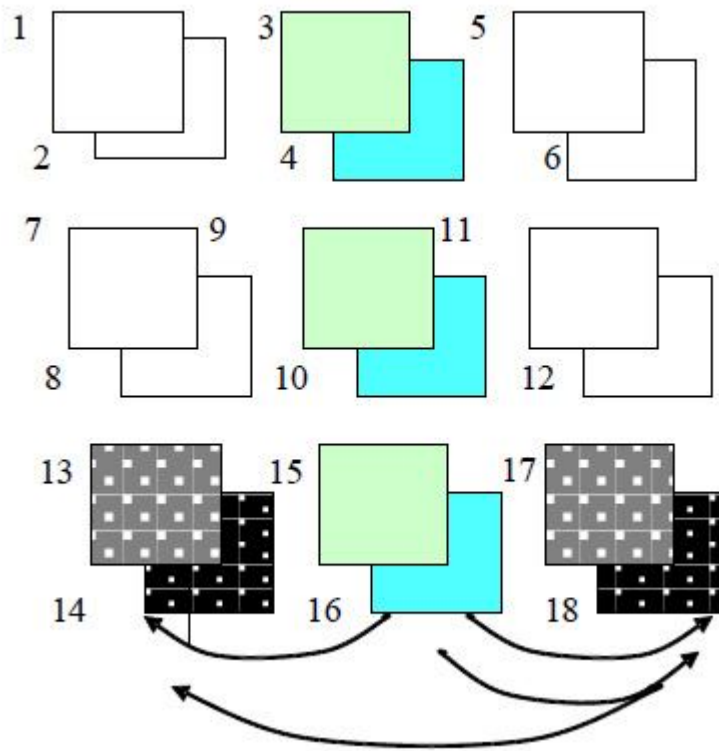


Figure 3. Multiscreen representation of *Ubik* (Coşer, 2011)

If the Multiscreen were applied not to the storyline in *Ubik* but to the author's background, his life and socio-political environment, then several screens would reflect his Berkeley years, the Watergate affair and the eviction of Nixon, his being under FBI observation and their accusations of his being a communist, the Vietnam War but also his religious experiences and many other aspects of the period.

In 1985, when it became obvious that TRIZ was turning into much more than a methodology for engineers, OTSM (The General Theory of Powerful Thinking) was developed by Nikolai Khomenko, whose model describes all the Elements of the World as having a list of features/properties, all of them characterized by Name and Value, which are parameters of the Element. If "strawberry" is the Element, then some of its possible Parameters are: Colour (with Values: Yellow, Red, etc.), Sweetness (with Values: High, Medium, Low), and so on. Each Value can become a Parameter described with other Values. The Multiscreen model of OTSM, called the System Operator, besides the three levels of Hierarchy, Time and Opposition, acquires other parameters whose number is infinite and which are extremely useful when dealing with literary works because they open the field to literary interpretations.

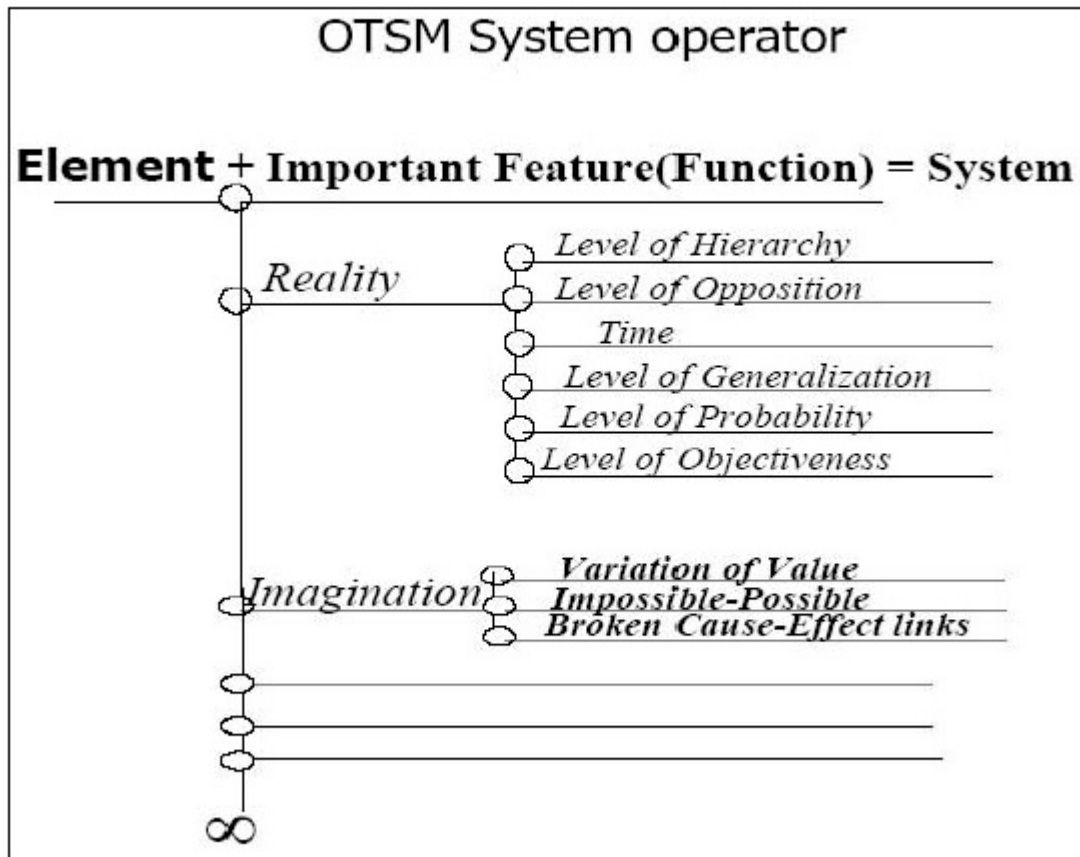


Figure 4. The System Operator in OTSM (Khomenko, 2007)

In *Ubik*, for example, to the Element "Imagination," other Parameters could be added, such as psionic powers, telepathy and precognition, the entropic energy, etc.

Although it may be viewed as a marker for the complexity of a literary work, the covering of the screens is not, however, the only factor in determining its worth. Many other aspects are involved, more subjective ones, such as novelty and persuasiveness of ideas or more objective ones, such as style of the author, which is approached in conformity with elements of classical literary theory.

A second ARIZ instrument which will be used for an analysis of Spark's short-story is the Su-Field Model. In technology, Substance-Field Analysis is used to express function statements as one object (S1) acting upon another one (S2) by means of a field (F). If a screwdriver (S1) falls into a tall metal cylinder, it can be retrieved by lowering a cord (S2) with a magnet at its end, in order to create a magnetic field (F) by the help of which the screwdriver can be lifted out (Salamatov, 1999: 42). Thus the model becomes functional. The basic model has the following graphical form:

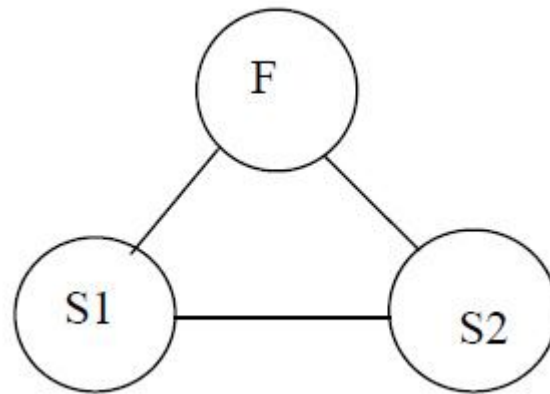
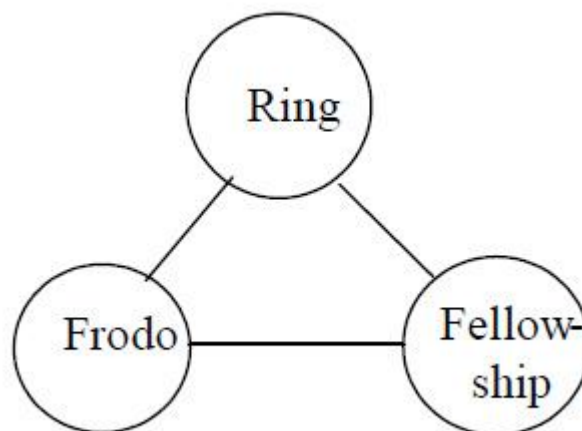


Figure 5. Basic Substance-Field Model

In literature, Su-Field models can disclose harmonious or disharmonious relationships between the characters, but they can also be relevant when appreciating the complexity or "wholeness" of the story. They can connect people, but can also include concepts and ideas. The first model below illustrates the initially harmonious relationship created in J.R.R.Tolkien's novels *The Lord of the Rings*. At Rivendell, Frodo unconsciously finds himself becoming one of the Substances in the following Su-Field Model, where S1 is the ring bearer, and S2 is represented by all those who become the fellowship of the ring. The ring itself, this entity which has a life of its own and so deeply influences destinies of kingdoms in various realms, becomes the connecting Field.

Figure 6. Basic Substance-Field Model in Tolkien's *The Lord of the Rings*

Besides the basic model, there are a great number of possible representations of incomplete models or variations of the standard situation (*Tools*, 1999). When the necessity of enhancing the model appears, one of the elements of the model can be changed into an independently controlled complete model. In the example below, the necessity of destroying the ring (F), is connected to the

person undertaking the action (S1). On the right side, there is an independent model which has a dynamic quality in the novel: it changes together with Gandalf's magic interventions. In this model, Gandalf's influence (F) is exerted on Frodo's companions, Pip and Merry (S1), on the one hand, and the walking trees, the Ents (S2), on the other.

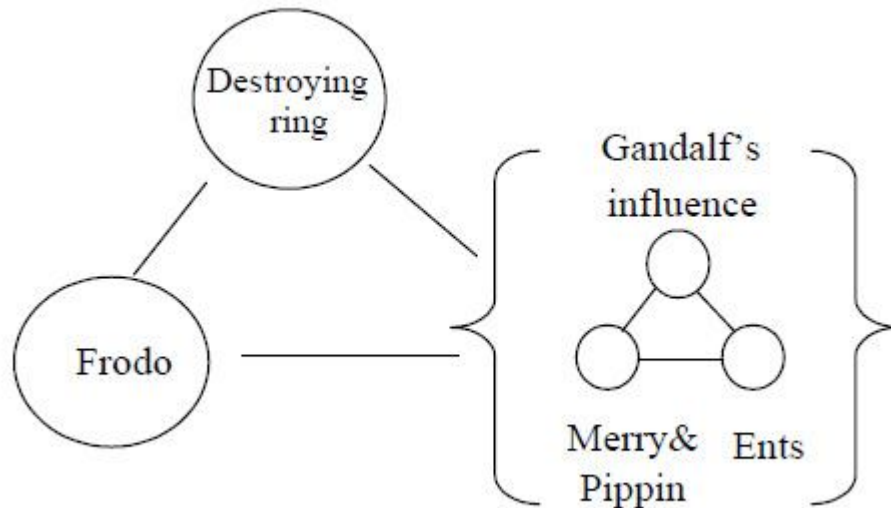


Figure 7. Sample of Complex Su-Field Model

The following Su-Field represents a model of interaction where S1 produces a useful effect on S2 but, at a certain moment, a negative counteraction occurs: the relationship between Gandalf the Grey and Saruman the White becomes undesired after the latter has yielded his powers to Sauron. Between Saruman and his powers, a harmful interaction is developed since he willingly passes in the service of the evil.

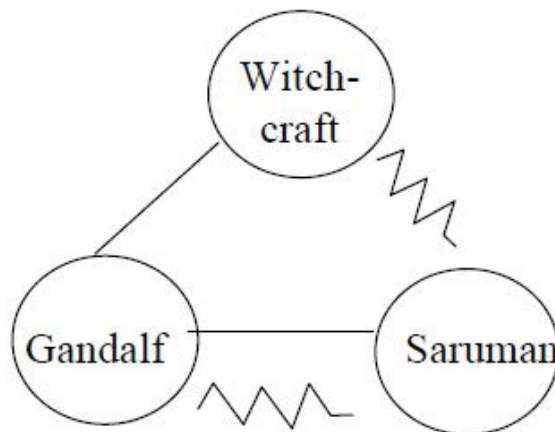


Figure 8. Sample of Harmful interaction within a Su-Field Model

3. Applying the tools to Muriel Spark's short-story "The Portobello Road"

3.1. The Multiscreen

In a nutshell, Muriel Spark's short-story "Portobello Road" (1958) is the first person narrative of Needle who, having been murdered five years before the beginning of the narrated events, is back from time to time, apparently to haunt the murderer and to tell the story of the murder.

In the attempt to visualize the story in the perspective of the two tools above, interesting aspects can be revealed.

A first thing to consider is that, when using the Multiscreen Model for the story line, one discovers that two screens are covered by the action of the story, both of them at the present level: the subsystem and the anti-subsystem, screens marked 1 and 2 below. While it would be convenient to consider that the voice coming from beyond the grave, and thus being endowed with third person omniscience, narrates real events that happened in the past, and thus screens marked 1 and 3 below would contain the story, however, the snapshot quality of the presentation does not allow for such a representation. There is no cinematographic unfolding of the events in front of the reader's eyes. There is just Needle's voice "telling" snapshots. Thus even the recurring motifs – quite a few in the story – which normally cover several different screens, in this case, belong to one screen and are a sign of fragmentation, which reinforces the idea of snapshots. The story of how she got to be called "Needle" (by finding a needle in a haystack one summer day) is just one more reason to place her voice in the anti-system square since, the very meaning of the well-known idiom (to find a needle in a haystack) achieves distance both from the story and from real life.

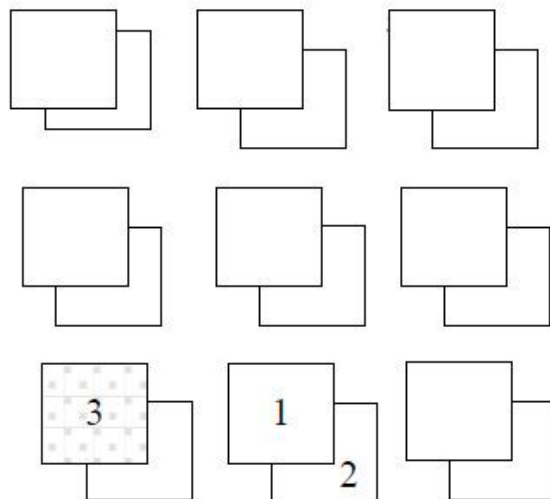


Figure 9. Multiscreen representation of "The Portobello Road"

The concept of several possible worlds and alternate realities has known an unprecedented burgeoning in 20th century literature and language. In his essay "If You Find This World Bad, You Should See Some of the Others" (1977), science fiction writer Philip K. Dick, already in the ontological phase of his career, takes up questions about the possibility of several alternate worlds overlapping in a "lateral arrangement," worlds which are inhabited by us in turn. This would mean that our subjective, obviously different impressions of the world are a result of the fact that "objectively, not subjectively, our worlds may differ."

It may be that some of these superimposed worlds are passing out of existence, along the lateral time line I spoke of, and some are in the process of moving toward greater, rather than lesser, actualization. These processes would occur simultaneously and not at all in linear time. The kind of process we are talking about here is a *transformation*, a kind of metamorphosis, invisibly achieved (237-38).

In *Ubik*, Dick speaks of people in "cold-packs," who are contacted by their relatives during visiting hours. The catch is that this can go on for a limited time, after which they slowly go out of existence for the people in the real world. Juxtaposing these two ideas, one concludes that Needle's voice, speaking in snapshots from beyond the grave, is the author's extraordinarily ingenious way to represent the fractality of life after death since the events of her life are reproduced, but this is done matter-of-factly and from a distance, having already lost the impact and consequence they had on the character's real life, in the real world, as we know it. By this fact alone, we can exclude the story's labelling as a "ghost story" and we can also assign all the narrated events to only one dimension of the Multiscreen. We can also complete the Parameter Imagination of the System Operator of OTSM by adding the Value "Life in death," which can act as a measure of Spark's resourcefulness.

Needle actually discloses six "memories," all of them connected with her friendship with three other people: Kathleen, George and Skinny. In the first one she explains how she got stuck with the nickname "Needle": one summer day she found a needle in a haystack and the photo that was taken (one of the several recurrent motifs of the story) was showing them, "each reflecting fearlessly in the face of George's camera the glory of the world, as if it would never pass" (1994: 28). This last reflection, the last line of the story, is, at the same time, the only one echoing a slight trace of regret or nostalgia, in contrast to the rest of the account told in a matter-of-fact voice, with a complete lack of enthusiasm for the past or vindication for what happened. Needle is impersonal, even slightly ironic in addressing her death, as she was during her lifetime. Always a "drifter" (6), unable to follow a career or to get a long-term job, always desiring "to write about life" (6) – another leitmotif of the story – she aroused the others' envy with her lackadaisical way of facing the challenges of life. All characters in turn call her "lucky," – a third leitmotif and a thing which seems to greatly annoy her: Skinny, for finding the needle; George, for not being "bound by anyone" (12), even though the same character becomes aggressive in pushing her towards a marriage with Skinny; and Kathleen, her friend, on different occasions when the two young women meet. The truth is that Needle is free and careless but not entirely happy.

Maybe the fact that she could not accomplish her dream of writing about life before she was killed at the age of thirty is her reason to tell her story now and, in so doing, to walk one more step towards complete detachment. It certainly seems so since, as soon as George – having gone through the hell of her haunting – has a nervous breakdown and confesses his crime, although uselessly from a legal point of view, Needle says: "I doubt if George will ever see me again in the Portobello Road. He broods much over the crumpled snapshot he took of us on the haystack" (28). George is ill and has to leave London for Canada and, consequently, Needle can stop haunting him.

The truth she admits about herself all through the story is that she has never been able to commit. She is playing around with the idea of marrying Skinny but breaks their engagement as soon as she is left a small legacy; next she leaves him in Rhodesia because she gets bored – a story we learn in Needle's second and third snapshots dealing with the African period; then she considers marriage again after Skinny recovers from TB, as she admits to Kathleen in her after-the-war snapshot.

Needle's next snapshot is connected with Kathleen and George getting together while she was in Scotland and it also deals with the moment of her murder. Her Scottish upbringing and "God's ordinances" (8) make her silently reprove George for his marriage with a black woman. But when George is about to commit bigamy, she makes the decision to tell Kathleen, a choice that will cost her her life.

"He looked as if he would murder me and he did..." (24). This act is supposed to be the climax of the story, but its strategic power seems dissipated by the fact that we know from the beginning that the heroine was murdered. Or is it that the prosaic statement at the beginning, "I must explain that I departed this life nearly five years ago." (6) may be considered just another skilful way of building up the reader's interest? Probably the latter since, in the very next sentence, the reader is offered the promise of justice being done: "But I did not altogether depart this world" (6). And since questions regarding alternate realities and life after death can get only a "you may believe it or not" answer, the reader is left with Needle's explanation: she still had business to attend to, obligations, so many things to do that she took her recreations only on Sunday mornings. But the papers she had to look over had already been torn up by her executors and her Sunday morning recreations, which she spent strolling in Portobello Road, were connected, although she doesn't admit it, with Kathleen and George (now her husband) spending their mornings hunting for antiques in the same place. Thus the reason for her being there becomes meaningful, as well as the reason why she could only speak to George: "It was not for me to speak to Kathleen, but I had a sudden inspiration which caused me to say quietly, 'Hallo, George'" (3). The same way, the "degree of visibility" that set in allowed only George to see her. Moreover, there are only two instances when the progress of the snapshots is interrupted by an intruding present reality, both of them connected with the punishment she inflicts on George and its consequences. A fascinating point to make is that, between the moment Needle tells of her meeting with George at the farm in Kent and up to her statement following her murder by George: "I suppose that was why he looked so unwell when I stood, nearly five years later, by the barrow in the Portobello Road and said in easy tones, 'Hallo, George!,'" the story acquires an obvious fractal quality: it contains all the main points, elements of

character depiction and recurrent images so that, by reading only that short passage, the reader can understand what the whole story is about.

So far this article has dealt with the application of the Multiscreen to the story line of the short-story and the illustration of how it could highlight the structure of the story. But several other possibilities are open. Each character could be placed in a separate diagram to reveal physical or moral character traits and their evolution. For example, at the very beginning Kathleen says "I've lost all my looks, it's in the family." Such a trait would cover the present and future screens of the subsystem while her fondness for antique jewellery would cover all three screens at the same level, since it is a passion which will most surely stay with her all through her life. Interestingly, her feelings for George, which are quite diverse and dynamic, ranging between tolerance, annoyance and finally comradeship, will all belong together in the present since they are part of Needle's story.

While Skinny is the less developed character, George is the most interesting one. His desire to keep the four of them together works as one more leitmotif in the story. He seems to be lost without the others, "desperately afraid of neglect" (6), anxious not to be forgotten, pestering and "sending frantic cables" (7), pathetic (11), and ready to cry for the old times, in need of "mothering" (18), always reproachful, and always blaming the others: "If you and Skinny had been nicer to me, I would never have lost my head and married the woman, never" (15). All these traits depicting a pitiful character, together with his physical description – large and heavy with a full red mouth – could belong to the past of the subsystem. However, they are all set in opposition with a trait that completely contradicts the previous ones and belongs to the present screen. A first hint comes with the reason he gives for marrying in Africa: "I needed the woman" (13). And then his monstrous aggressiveness is revealed when he murders Needle for the sole reason that she could have interfered with his decision of marrying her friend, Kathleen, without having divorced his African wife.

One more of the several other possible uses of the Multiscreen could embrace the type of research done by a New Historicist critic. New Historicism, a theoretically all-inclusive movement, emerged in the 1980s in Britain and the US sending students and researchers to the libraries in view of conducting lengthy investigations in search of documents related to the tiniest aspect, official paper, report, etc., that could be connected to the work and the author's background. Handling huge amounts of information is a difficult job to do unless it is properly organized in the appropriate screens. One rule should be followed: a starting screen has to be decided on, for example, in this case, it could be the publication year of Spark's short-story, 1958, which would be assigned to the present of the subsystem. In this case, her African experience with her husband, which ended in 1943, will fill the past of the subsystem, as well as her conversion to Catholicism in 1954. WWII will fill the past screen of the supersystem. These are elements whose presence, though not openly mentioned, can be detected in the short-story itself. Spark being labelled a "postmodernist" writer would belong to the future screen of the subsystem. Detailed research information can thus be attached to all of the screens. In order to see connections easier, Su-Field models can be built to emphasize associations or ruptures.

3.2. The Su-Field Model

A second interesting aspect is revealed when setting out to build representative Su-Field models. Due to its specificities, a short-story is more compact than a novel, has fewer characters, fewer side actions, and develops towards a climax more abruptly. Therefore its Su-Field representation will be much simpler, containing only a few complex fields and a small variety of relationships, as opposed to that of a novel, which can become a notably branchy diagram. For example, the starter Su-Field of the already mentioned *Lord of the Rings* would probably cover several pages in order to faithfully illustrate relationships and concepts. In trying to represent the relationships developed in "Portobello Road," one is invited towards trying to establish connections between the four characters. This would be a logical first step since the characters seem to organize themselves into pairs. But when attempting to build the models, one cannot but realize that it is impossible to find a connecting field between any of the pairs. The total absence of strong feelings caused, as stated, by Needle's disengagement, but also by the characters' personality traits, prevents the completion of any such model. Even George's marriage to Matilda is a consequence of his needs and not of any kinds of feelings, including what would have been self-evidently indispensable – love and respect. Oddly, only one basic Su-Field is representative, and nothing can be attached to it to make it more complex. And paradoxically, that one model ties Needle to her murderer, while the Field does not consist of the strong connection exercised by the act of murder since this unpremeditated action is just the final act in the series of reproaches with which George overwhelms particularly her but also the others. The Field is the extremely powerful social determination, including misconceptions, social conventions, habits, religion and racial prejudices, all interplaying in the short-story and leading towards its fatal outcome.

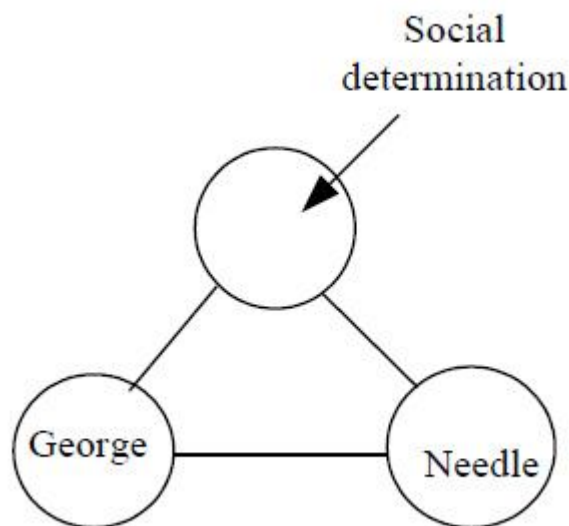


Figure 10. Basic Su-Field Model for "The Portobello Road"

Further models can be built but none of them would be functional. For example the model for the marriage relationship (F) between George (S1) and Kathleen (S2) contains two harmful interactions since this marriage is legally impossible because of Matilda (S3). It also represents the insufficient relationship between George and Kathleen since their marriage is not based on love either, but rather on old fellowship. This is in agreement with the narrow range and weak manifestation of feelings in the short-story.

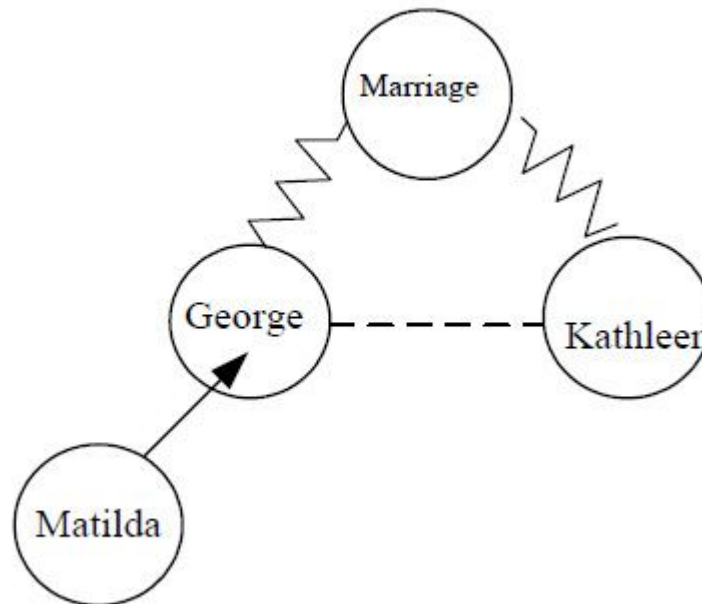


Figure 11. Su-Field Model of harmful interaction

Thus the Su-Field Model reinforces the results of the previous method. A further conclusion to be drawn is that Spark's story is a clever representative of the genre, but its accomplishment is not due to the events that are told but rather to the author's talent of "defamiliarizing" – a term so dear to the Formalists – the common murder and changing it into an uncanny and memorable story.

4. Conclusion

When it comes to literary studies, there are people who are naturally talented and there are others who have to learn the craft of interpretation. The strength of the tools used above, as well as of other ARIZ tools that can be used for humanistic studies, is that they lead to sure results even with people who are less versatile in the art of approaching literature. The literary experience is, by definition, introspective, subjective, an artistic inwardness, which appears enjoyable and satisfying to a mind that is versatile in manipulating suggestive and allusive plots and symbolic language. Nevertheless, it often becomes a frustrating endeavour to people who do not have an inborn penchant towards or enough sensitivity for this kind of sophistication. The use of TRIZ tools expands the mind and may turn the perception of literature into an acquired experience, an instant

identification of the structure of the story and of its main characteristics, with no literary jargon required and no previous knowledge of critical trends necessary. The tools lead towards a completely unbiased and objective perspective. They do not depend on the trend or on the socio-political background of the period while offering as thorough a study as the critic is willing to undertake.

Nowadays, once OTSM was developed and knows permanent advancements thanks to its practitioners, TRIZ methodology is used in all domains of human activity, including private life. Approaching literature is just one possibility out of the many. This is the reason why these instruments may fulfil the role of “third culture” tools (Snow, 1963), bridging the gap between the humanities and the scientists.

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