Let's begin with a discussion of what a grammatical analysis is. In most basic terms, a rigorous scientific grammar attempts to identify the essential parts of a sentence (in whatever language). If essential parts of the sentence are missing, the sentence fails. If essential parts are redundantly duplicated, the sentence also fails.

a. The cat sat on the mat.
b. The cat did sit on the mat.

c1. *The cat did sits on the mat.
c2. *The cat did sat on the mat.

Conversely, if the tense element is removed altogether, the sentence breaks down.

d. The cat ø sit on the mat.

So we conclude that tense is one of the essential parts of a well-formed, free-standing sentence (=proposition). For the sake of brevity (and people's generally low tolerance for long discussions of grammar), I'll skip over detailed discussion of the other essential parts and simply list them. Linguists generally agree that there are seven key components of any free-standing proposition in any language [Note 2]:

1. Optional modifier-phrases like "on the mat."
2. Subjects like "the cat."
3. Tense elements like "did."
4. Verbs, like "sat."
5. The predicate of a sentence, the link between tense and verb: "sat" or "did + sit."
6. The expanded predicate of a sentence, the link that ties any optional modifiers to the predicate: "...did sit + on the mat"
7. The main proposition: the link that ties the subject to the predicate (or to the expanded predicate): "The cat + did sit on the mat."

Two other brief points I need to make about grammatical structure, before discussing what the Trek-character grammar looks like.

First, there's a reason that there would be exactly seven key elements. The first three elements can be thought of as "atoms." These atoms can either be pure or they
can be tied together in four other, logically possible ways. The three atoms of grammar are these three functions:

1. Picture creations = modifiers in their pure form.
2. Pointing actions = subjects in their pure form.
3. Linking relations = connections made between any two parts of a sentence. The essential function of "did" or "does" or "is" or "was" is to tie a subject like "the cat" to a verb like "sit."

The other four elements are actually "molecules" made of two elements tied together:

1+2: Verbs are a mix of picture creation and pointing action. The verb "sit" paints a picture but also points us to a "sitter", whatever is doing the action indicated by the verb.

1+3: Predicates are a mix of picture creation and link relation. "Did sit" ties the picture element of the verb (1) to "did" or "does" (3).

2+3: Propositions are a mix of pointing action and link relation. This is illustrated by the fact that very most minimal possible sentence is something like "It did", a subject (2) and a tense element (3).

1+2+3: Expanded predicates. This element ties modifiers like "on the mat" (1) to the rest of the proposition "it did" (2+3).

And my final point about grammar is this. Given the logic of three atoms and four molecular combinations, the seven key elements can be grouped in three distinct but overlapping sets of four elements each:

The first set, metaphorically speaking, are like four variations (a-b-c-d) on the color yellow:

1a. modifiers = pure yellow = picture creation (1)
1b. verbs = orange = yellow (1) + red (2)
1c. predicates = green = yellow (1) + blue (3)
1d. expanded predicates = grey = yellow (1) + red (2) + blue (3)

The second set, metaphorically speaking, are like four variations (a-b-c-d) on the color red.

2a. subjects = pure red = pointing action (2)
2b. verbs = orange = yellow (1) + red (2)
2c. propositions = purple = red (2) + blue (3)
2d. expanded predicates = grey = yellow (1) + red (2) + blue (3)

The third set, metaphorically speaking, are like four variations (a-b-c-d) on the color blue:

3a. tense = pure blue = linking relation (3)
3c. predicates = green = yellow (1) + blue (3)
3c. propositions = purple = red (2) + blue (3)
3d. expanded predicates = grey = yellow (1) + red (2) + blue (3)

To summarize to this point, I've identified three hallmarks of grammatical structure:

1. seven key elements,
2. which are generated by three atomic elements plus four logical combinations of those atoms,
3. which manifest themselves as three distinct but overlapping sets of four elements each.

All of the above brings me to my main theme. The characters in most television programs (obviously) would not manifest this kind of structure--what are the odds that they would? However, there are a small handful of TV programs that do manifest such structure, and these share one key attribute in common, which is that they remain endlessly watchable in rerun for a significant number of viewers.

_Gilligan's Island_ is perhaps the cleanest example. With other programs the grammatical water is muddied to greater or lesser degree by main-character replacements and by recurring minor characters that appear in a few episodes but disappear over the course of the series. [Note 1] _Gilligan's Island_ however makes do with the same seven characters (and even relatively few guest stars) over the whole length of its 96-episode (and subsequent 38-year run on our TV sets and in our heads).

1. Mary Ann
2. The Skipper
3. Ginger Grant
4. Gilligan => 1+2
5. Mrs. Howell => 1+3
6. Mr. Howell => 1+2+3
7. The Professor => 2+3

That the program's characters have grammatical structure is manifest in their endlessly successful rerun cycle, plus the fact that its seven characters transparently sort themselves into three distinct but overlapping sets of four members each:

1a. Mary Ann = pure yellow = Character Known by Name (1)
1b. Gilligan = orange = yellow (1) + red (2)
1c. Lovey Howell = green = yellow (1) + blue (3)
1d. Thurston Howell III = grey = yellow (1) + red (2) + blue (3)
2a. The Skipper = (pure) red = (most) Male character (2)
2b. Gilligan = orange = yellow (1) + red (2)
2c. The Professor = purple = red (2) + blue (3)
2d. Thurston Howell III = grey = yellow (1) + red (2) + blue (3)

3a. Ginger Grant = (pure) blue = (most) Famous Character (3)
3b. Lovey Howell = green = yellow (1) + blue (3)
3c. The Professor = purple = red (2) + blue (3)
3d. Thurston Howell III = grey = yellow (1) + red (2) + blue (3)

Note the exclusion of Ginger from the first set and inclusion of the Professor in the third set. Both these points may require some comment. Ginger Grant is a transparent homage to Marilyn Monroe. We can safely assume then that GG's name is merely a stage name, just as MM's was. Thus, Ginger's true name is unknown, which places her outside of the first "yellow" set. The Professor is identified in the pilot episode as a well-known research scientist and boyscout leader. In comparison, Mary Ann, the Skipper, and Gilligan are utterly obscure.

It seems certain that this clean placement of characters into three logical sets was merely a happy accident. No other program created by Sherwood Schwartz has this precise structure, not even the dismally but mercifully short-lived "Dusty's Trail" (with Bob Denver) which transparently attempted to recreate the Gilligan's Island characters. The Brady Bunch comes close perhaps, with its three parallel sets of 1) girl children, 2) boy-children and 3) parents, including Alice as "middle" parent. Each set lacks a fourth member however, and none of the sets overlap.

A fully grammatical version of The Brady Bunch would more closely resemble the overlapping structure of Hamlet (likewise a story of two families blended, but tragically so). This play is without question the most frequently replayed and requoted of Shakespeare's works:

1a. Ophelia = (pure) yellow = Character Driven (most) Insane by Love (1)
1b. Hamlet = orange = yellow (1) + red (2)
1c. Gertrude = green = yellow (1) + blue (3)
1d. The Ghost Father = grey = yellow (1) + red (2) + blue (3)

2a. Laertes = (pure) red = Character (most) Driven by Need for Revenge (2)
2b. Hamlet = orange = yellow (1) + red (2)
2c. Claudius = purple = red (2) + blue (3)

2d. The Ghost Father = grey = yellow (1) + red (2) + blue (3)

3a. Polonius = (pure) blue = (most) Useless Parent (3)
3b. Gertrude = green = yellow (1) + blue (3)
3c. Claudius = purple = red (2) + blue (3)
3d. The Ghost Father = grey = yellow (1) + red (2) + blue (3)

It's worth noting that from Polonius' family (daughter [1], son [2], and the old windbag himself [3]) constitute the "pure" elements of the Hamlet-grammar. Gertrude and her family (Hamlet, Claudius, The Ghost) constitute the mixed elements:

Here's the story, of a Pompous Windbag,
Who was bringing up his own boy and a girl,
One of them was slightly cracked, like her mother,
The other one a churl.

Here's the story, of a Danish Lady,
Who was bringing up one deeply troubled son....

But I digress. This particular article is about the grammar of Classic Trek characters. It is of the same type as those illustrated above, seven main characters in three overlapping sets. The other 423 people on the classic Enterprise, and the ship itself are (relatively speaking) merely props and background for these seven.

1a. McCoy = (pure) yellow = Character (most) Prone to Emotional Display (1)
1b. Kirk = orange = yellow (1) + red (2)
1c. Sulu = green = yellow (1) + blue (3)
1d. Scotty = grey = yellow (1) + red (2) + blue (3)

2a. Spock = (pure) red = Character (most) Driven by Concern for Order and Logic (2)
2b. Kirk = orange = yellow (1) + red (2)
2c. Uhura = purple = red (2) + blue (3)
2d. Scotty = grey = yellow (1) + red (2) + blue (3)

3a. Chekov = (pure) blue = Character (most) Defined by Support Function (3)
3b. Sulu = green = yellow (1) + blue (3)
3c. Uhura = purple = red (2) + blue (3)
3d. Scotty = grey = yellow (1) + red (2) + blue (3)

And these third-set "blue" characters are (in turn) merely supportive background for McCoy, Spock, and Kirk. The emotion/logic dichotomy in Classic Trek is well-understood and widely commented on, at least as far as McCoy, Kirk, and Spock are concerned. This emotion-logic dynamic is less noticeable in the background characters, precisely because they are noticed less, but it is still operative. Sulu and Scotty...
(1-3, and 1-2-3), as few lines as they get, are much more likely to be shown smiling broadly, or making a passing wisecrack, than either Uhura (2-3) or Chekov (3). These latter characters tend to be, like Spock, quite dour in expression. This distinction is in keeping with the overall grammar of the show.

This grammar apparently has considerable psychological impact, and makes Classic Trek what we know it to be. As with Gilligan's Island and Hamlet, Classic Trek has done exceptionally well in rerun, and it's allusions and turns-of-phrase have utterly permeated popular culture. The same cannot be said for later versions of Trek. Certain characters and motifs, such as the resistance-is-futile Borg, are rather memorable, it is true. By and large however, the distinct influences of Next Generation, and of Deep Space Nine, and of Voyager, are fading rapidly as time passes since the last original episodes of these series have aired. This is the norm for most television programming, just as clean grammatical patterns in television are the rare exception, rather than the rule.

I'll now briefly discuss the deviations from grammaticality found in Next Generation and Voyager. In the first case, there are key grammatical positions unfilled among the characters. In this, Next Generation Trek is like the ungrammatical sentence, [*Cat sit on mat.], where "the" and "did" are missing. In the second case, Voyager is like the sentence [*The cat did sits sleep on the mat.], where "did" and "sleep" are distracting, redundant elements.

Characters above are enough alike to define three overlapping sets, but once those sets are in place, two of the seven grammatical slots go unfilled, the "green" and the "purple." Other main characters on the show (Troi, Yar, Dr. Crusher, and Riker) fail to be defined by those positions, and so they come across as being unsatisfactory in various ways.

Troi is a consensus-builder, but she is not in a ranking leadership position, nor is she ever portrayed as an open-minded student/novice in the ways that Wesley, Data, and LaForge consistently are. Her general incompetence as a psychologist seems to have resulted from years of practice and never shows any sign of improvement. Though partly alien, Troi is not alien-looking in the ways that Data, Worf or even LaForge is—with his air-filter-like visor. The non-standard outfits and hairdos she usually wears are merely stupid-looking, as opposed to alien looking.

Riker leads in old-fashioned Kirk-like ways, by order rather than by consensus-building. His character seems to improve somewhat when he grows the beard (making him look more like Worf perhaps) but this is too little, too late.

Dr. Crusher is not in a leadership position, nor is she alien-looking.

The short-lived Yar character was still learning her job, but was not a consensus-building leader. Guinan (Whoopi Goldberg's occasional character) had some kind of unofficial leadership role, and she did look alien when she wore her hat, but again, this was too little shown of this character, and and she comes too late to repair the gaps entrenched in the Next Generation Pattern.

In Voyager, we find mostly the opposite problem: too many characters for the logical positions available. As a result, the characters fragment into poorly connected subsets. Like Next Generation, the show also has main characters (Kes and Kim) which fill no apparent role at all.

### From Next Generation

1a. Wesley = (pure) yellow = Character (mostly) Still Learning His/Her Job (1)
1b. Data = orange = yellow (1) + red (2)
1c. ??? = green = yellow (1) + blue (3)
1d. LaForge = grey = yellow (1) + red (2) + blue (3)

2a. Worf = (pure) red = Character (most) Alien Looking (2)
2b. Data = orange = yellow (1) + red (2)
2c. ??? = purple = red (2) + blue (3)
2d. LaForge = grey = yellow (1) + red (2) + blue (3)

3a. Picard = (pure) blue = Character (most) Gently Leading by Building Consensus (3)
3b. ??? = green = yellow (1) + blue (3)
3c. ??? = purple = red (2) + blue (3)
3d. LaForge = grey = yellow (1) + red (2) + blue (3)

### From Voyager

1a. The Doctor = (pure) yellow = Character (most) non-human (1)
1b. Neelix = orange = yellow (1) + red (2)
1c. Tuvok = green = yellow (1) + blue (3)
1d. Seven of Nine = grey = yellow (1) + red (2) + blue (3)

2a. Lt. Torres = (pure) red = Misfit Character (most) Internally Conflicted (2)
2b. Paris = orange = *not yellow (1), but slightly less red (2)
2c. Chakote = purple = (only somewhat) red (2) + blue (3)  
2d. Seven of Nine = grey = yellow (1) + red (2) + blue (3)  

3a. Capt. Janeway = (pure) blue = Character (again)  
Leading by Building Consensus (3)  
3b. Tuvok = green = yellow (1) + blue (3)  
3c. Chakote = purple = red (2) + blue (3)  
3d. Seven of Nine = grey = yellow (1) + red (2) + *not really all that blue (3)

Readers may have noticed that the "star" character in a well-formed pattern is always in the orange position: Gilligan, Hamlet, and Capt. Kirk, for example, but also Hawkeye on MASH, Sam Malone on Cheers, and so forth. Data (accidentally I think) ends up the orange character also, and indeed, most NG episodes end up being about him. On Voyager, (again surely by accident), Neelix ends up being the true orange character and thus too much the focus of that program, a character too ridiculous in concept and execution to carry the show.

I'll leave an analysis of the (even more profound) ungrammaticality of Deep Space Nine as an exercise for the interested reader. These programs bring us up to 1995. As a (former) ST fan, I myself had become frustrated that Paramount couldn't recreate the appeal of Classic Trek. I'd already worked out the theory of character grammar that I've just outlined, and I decided to write a novel illustrating how the theory would apply.

The novel (Supposition Error, published in 1996) takes place in a parallel universe where Gene Roddenberry's Trek pilot is NOT picked up by Paramount. The TV show that eventually fills the same ecological niche in my novel is called Northstar. Set in a different, war-torn 23rd century, the show had the following main characters, in these grammatical positions:

(orange) Lee Majors as Capt. Anson North of the Star Union AlterShip Endeavour,  
(red) Lou Gossett Jr. as his combative alien tactical officer Karpak,  
(yellow) Tim Matheson (original voice of Johnny Quest) as Savan, a child prodigy who entered Star Union Academy when he was eight, now teenaged synthesis officer for the Endeavour.

(green) Yvonne Craig (Batgirl in our universe) as the seductive green-skinned astrogator Ilex,  
(purple) Stephanie Powers (Hart to Hart) as the sharp-tongued executive officer, linguist/interpreter Donna Ciccone,  
(grey) Rutger Hauer (Bladerunner, etc.) as the cyborg chief engineer, Manuel Lermontov—invented a few years before Seven of Nine came along.  
(blue) Ray Walston (My Favorite Martian) as the ship's physician, an endlessly patient and philosophical 300-yr.-old man called Doctor Lazarus.  
[Note 4]

I mention this novel primarily because
1) it contains a more detailed discussion of the underpinnings of Trek grammaticality, including its basis in the semiotic philosophy of C.S. Peirce, and
2) the novel resembles in several ways the plot and character pattern that LATER appears in Galaxy Quest, a film released by Dreamworks (Steven Spielberg) in 1999. Galaxy Quest was likewise what we may call a "FauxTrek," an alternative version of Paramount's favorite TV franchise.

(orange) Tim Allen as Capt. Peter Taggart, Capt. of the NSEA _Protector_,  
(red) Alan Rickman, as combative alien sidekick, Doctor Lazarus (!),  
(yellow) Tommy Webber as child prodigy navigator Lt. Laredo.  
(green) "Jane Doe" as the seductive alien female (adopted in the end by the crew).  
(purple) Sigourney Weaver as the sharp-tongued officer, Gwen DeMarco, who interprets the shipboard computer for the rest of the crew.  
(grey) Tony Shaloub as Fred Kwan as the (non-cyborg but still ethnic) engineer.  
(blue) Sam Rockwell as Guy Flegman, representing all the otherwise anonymous crewmen who get senselessly killed in course of the show.

I mention Galaxy Quest primarily because it somehow has a grammatical character pattern, even though NONE of Paramount's own "FauxTrek" attempts had managed this trick. Galaxy Quest is also important because (though a comic parody of the original Trek), it ironically may have had some serious influence on Paramount's latest official Trek offering called Enterprise, a 22nd-century prequel to the classic 60s show. For one thing, Paramount somehow realized that it likewise needed to return to the discipline of seven characters, and that it was possible to alter details of the original characters but still keep the overall system intact:

(orange) Scott Bakula as Capt. Jonathan Archer of the NX-01 prototype Enterprise.  
(red) Connor Trineer as the scrappy southern sidekick, Trip (the chief engineer),  
(yellow) Jolene Blalock as the seductive (Vulcan) female, T'Pal.
Anthony Montgomery as the (black) child-prodigy navigator Boomer
Linda Park as the (Asian) linguist-interpreter Hoshi.
Dominic Keating as very British tactical officer Reed.
John Billingsley as the ship's physician, endlessly patient and philosophical Dr. Phlox, who looks VERY like the Dr. Lazarus of Galaxy Quest, but acts VERY like the Dr. Lazarus of Northstar(!).

Note that Enterprise essentially reverses the roles of McCoy and Spock: The scrappy southerner is now the Captain's best friend and main sidekick. The Vulcan, now female, has the somewhat-secondary-sidekick yellow position. Note that Enterprise also simply reverses the ethnicity of Sulu (Asian navigator) and Uhura (black comm. officer), such that Boomer is now the black navigator and Hoshi the Asian communications specialist (and linguist/interpreter). Very Scottish Scotty simply becomes the Very British Reed. The only character radically different from those in Classic Trek is Dr. Plox, who seems to combine certain attributes of Neelix (now mercifully moved to the background) and Dr. Lazarus (from Galaxy Quest/Northstar).

Whether Enterprise is truly grammatical or not (and thus whether it is truly destined to do well in rerun) critically depends on how clean its logically overlapping feature sets are. Here there are some problems, but they are relatively minor, compared to the deep flaws of Next Generation, Voyager, and Deep Space Nine.

The main difficulty is that three of the characters (Archer, Hoshi, and Reed, as they've developed so far) are not as cleanly slotted in their positions as, say, the characters of Gilligan's Island are. Whether Enterprise will ultimately emerge as a big success in rerun depends on what/how the somewhat problematic characters are developed or replaced in the second and third seasons.

I can say with confidence however that the program shows far more promise that anything else that Paramount has produced since Classic Trek went into syndication.

ENDNOTES
[Note 1] For extensive promotional material on _Enterprise_, including the full Berman quote, see www.startrek.com.
[Note 2] For further discussion of the structure of grammatical phrases and principles generally understood by linguists to apply to all languages, see Steven Pinker, The Language Instinct, NY: William Morrow, 1994, pp 74-118.
[Note 3] The grammaticality of a number of other programs (e.g. M*A*S*H, Cheers, The Beverly Hillbillies, Night Court, Hogan's Heroes, etc.) are discussed in more detail in Manning, "Paralinguistic Character Structure in Popular Syndicated Television." Semiotica (1992), vol. 89, 47-82.