

Analysis of Cognitive Communication Scripts

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The term *script* brings to mind the written text of a theatrical play or film, used to tell actors what to do and say in each scene. Such a script might be very detailed, laying out precisely how the players must read their lines, and could also include the required timing, emotions, expressions, and gestures that the actors must enact. In other cases, the script may be less of a dictate and more of a general guideline for action, providing a series of prompts to help the actors navigate the scene. In either case, the concept of a script is associated with *performance*; specifically, a performance imagined by a creative team (writers, directors, cinematographers), which the actors bring to life.

Among social scientists, particularly communication scholars and cognitive psychologists, the terms *script* and *cognitive script* have a different but related meaning, adapted from the work of Erving Goffman (1959, 1963). Goffman was a renowned sociologist who wrote extensively about the performative nature of everyday human interaction, including the different roles that people take on, depending on the places, situations, and times that they are in, the goals at hand, and the other people they are interacting with. According to Goffman, “encounters entail and signal customary expectations for how the self and others are to act in them” (Erickson, 2004, p. 147). The customary expectations referred to depend largely on what the situation is, when and where it is taking place (historical or temporal aspect), who is participating in the situation, and what they hope to achieve. For Goffman and the scholars extending his work, a *cognitive script* distills these expectations, and can be understood as “a schema held in memory that describes events or behaviors (or sequences of events or behaviors) appropriate for a particular context” (Gioia & Poole, 1984, p. 450). Put differently, a cognitive script tells us how routine activities are expected to proceed, including what should occur in what sequence. A script in this sense is a model for how to act, and may include information on the roles we (the performers or actors) are expected to play, what types of talk are expected or permissible, and what types of activities are sanctioned within those roles.

Before elaborating further, it will be helpful to review a concrete example—the cognitive script for *dining at a restaurant*. The prototypical restaurant script involves the roles of diner, host or hostess, and server, and in North America would roughly proceed as follows. The diner enters the restaurant and pauses in the reception area, waiting to be seated by the host/hostess. The host/hostess selects a table and leads the diner to it. Once there, the diner is expected to remain at the selected table for the duration of the meal. Within a few minutes of being seated the server approaches the table, greets the diner,

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and introduces him/herself by name. Despite the server's name having been offered, the diner is not expected to use it; furthermore, the diner does not offer his/her own name. After this initial greeting, the focus of talk between the diner and server remains on the meal. The server will explain the items on the menu as needed, and takes the diner's orders for food and drink. The diner and server are not expected to engage in small talk or general conversation with one another. The diner orders drinks while deciding on a main course. Dessert orders will be withheld until after the main meal has been consumed. Throughout the meal the server returns periodically to the table to ask if everything is all right. When the diner has placed the eating utensils side by side on the plate, s/he is finished eating. At the conclusion of the meal, the server will bring the bill to the table, where the diner will remain seated until the payment has been completed. At this point, the diner will show him/herself out of the restaurant.

Though we may sometimes be given explicit scripts to follow (some jobs, for example, require employees to make use of particular service scripts), it is most often the case that we learn scripts over time, acquiring them through socialization, the process through which individuals learn and are taught the norms, values, and rules of their social groups. Put differently, through our lifelong membership in various communities we pick up the rules and expectations about how to "do" routine social activities. Drawing on social conventions, cultural narratives, teachings, and our own positive and negative observations and experiences, we develop an assortment of conscious and unconscious script-related information. As the restaurant example illustrates, scripts encompass much more than isolated facts or experiences; they are bundles of information that we hold in our minds (Schank & Abelson, 1977), hence the descriptor *cognitive*. We enter social scenes with these packets of information in mind, testing and adjusting them as we engage in our moment-to-moment interactions. We store our developing understandings of these prototypical scripts for future reference and use; then, as we experience new situations we recall this information and use it accordingly to interpret and respond to communication and social situations.

All human societies have cognitive scripts for a diverse range of routine and non-routine activities related to all aspects of life, whether family, work, play, socializing, and so on. Scripts may be associated with particular settings (a restaurant, café, classroom), goals (eating a meal, drinking a coffee, learning a lesson, passing an exam), people (customer, server, barista, student teacher) and/or their relationships. Furthermore, we may have script tracks or variants where the script changes depending on the type of setting or activity (Abelson, 1981). For example, in addition to a general restaurant script we likely have scripts adapted for eating in diners, fast-food joints, Michelin-starred restaurants, and so on. Such scripts might indicate general guidelines for us to follow (how to order, when and how to pay) or they could include formulaic words and phrases that we would use or respond to, such as "How many in your party?" or "Have a nice day."

Regardless of what information a cognitive script contains, its parts are sequenced; that is, a cognitive script includes information on what activities occur in what order. For example, our restaurant script tells us that we enter the restaurant and speak with the host or hostess first, informing them how many people are in our group and divulging any other special conditions related to our seating requirements. When a table has freed up we are seated. After that, someone will take our orders for drinks, and after that we

will be invited to order our main dishes. Dessert orders will be taken at the end of the meal, and we will pay for the meal only after all of the food has been consumed, and so on. In this way, the different phases in a script “look like different scenes in a play; each has its own rules, each follows from the developments of the preceding scenes, and the action (if the agent is successful) rises to a cathartic agreement and ultimate resolution in the final act” (Kivisto & Pittman, 2013, p. 304). Each phase plays out in sequence, and has unwritten but generally agreed upon guidelines for what is acceptable.

Cognitive scripts are invaluable sociocultural resources that we utilize to successfully play our parts in our social worlds. In particular, scripts help us engage in the simultaneous and interrelated acts of anticipating, decoding, and strategically engaging in social activities. To say that scripts have an anticipatory value is to foreground their importance in the process of developing expectations about social activities. That is, cognitive scripts are closely linked with our ongoing understandings of how our myriad social activities should proceed, what roles we are expected to take, what communicative strategies are likely to result in desired outcomes, and so on. We use these expectations in each given moment to interpret the social activities that we are observing or taking part in. In this way our cognitive scripts have both information processing and predictive value—they help us identify and categorize situations, and anticipate what will happen next. This is of course useful in familiar as well as novel situations, where our cognitive scripts offer a relatively stable frame of reference for navigating unfamiliar environments. Finally, our scripts provide us with a set of guidelines on what should be done in the given situation, making them a valuable resource in strategically selecting our own words, behaviors, and responses to social situations (Bryan & Honeycutt, 2011; Gioia & Manz, 1985; Gioia & Poole, 1984).

Just as our cognitive scripts help us determine what we should do, they also tell us what we should avoid; that is, cognitive scripts naturally indicate what activities, behaviors, and/or communicative acts would *not* be acceptable in a given scene. Going back to the restaurant scenario, for example, consider what would happen if the server sat down at the table with the diner while taking the order, or casually asked the diner for a cigarette. What if the diner walked into the restaurant’s kitchen to pick up the food him/herself, or tried to bargain with the server over the cost of the food? Any of these actions would elicit surprise, confusion, or even anger from the other players in the restaurant scene, because they directly violate the players’ common understandings of how the restaurant scene ought to play out.

That scripts are mental resources guiding us on both what to do and what not to do highlights their close connection with the concept of *communicative competence* (Hymes, 1972). Briefly, communicative competence involves “what speakers need to know to communicate appropriately in a particular speech community, and how this competence is acquired” (Fitch, 2005, p. 324). Communicative competence is thus the ability to communicate appropriately with others according to the local norms, premises, rules, and other sociolinguistic factors of the given context. To be communicatively competent in a community one must both know the local rules and be able to perform them skillfully (Gioia & Poole, 1984). Like any skill, communicative competence is not fixed, but is rather a work in progress. We can have mastery over some cognitive scripts, yet still be novices with others. Likewise, over time we can

learn locally relevant scripts, and become increasingly able to employ them skillfully. As we do this, we render our scripts less and less visible; that is, as we become able to use scripts intuitively, we no longer question or analyze them. At this point, scripts are deeply learned enough to be automatic.

All this is not to say that scripts are deterministic. Scripts do not control human behavior. In fact, people learn scripts and also learn to use them strategically, whether to be perceived as communicatively competent or to achieve the desired ends (two closely related acts). People may also deliberately choose *not* to follow scripts, preferring to take alternative and sometimes unexpected courses of action. Furthermore, over time societies as a whole revise, update, modify, and change the scripts for routine activities, a fact that is immediately noticeable when reviewing how taken-for-granted rules of etiquette have changed over the centuries.

While scripts themselves are not deterministic, social groups can exert a kind of force over their members, influencing their behavior. Some groups and organizations even go so far as to deliberately conceptualize and apply particular scripts, for example in customer service scenarios and other organizational contexts (Gioia & Manz, 1985; Kivisto & Pittman, 2013; Leigh & McGraw, 1989). In such cases tension may result from people being compelled to utilize a script that either does not feel natural to them, or (in some cases) goes directly against their own expectations and intuitive behaviors (Cameron, 2000).

The suggestion that an unfamiliar and/or unnatural script could cause tension or discomfort leads to another crucial observation about scripts: they are not universal. On the contrary, cognitive scripts are locally and culturally bound. To say that cognitive scripts are local is to acknowledge that they vary—sometimes greatly—between groups, whether those groups are institutional, organizational, regional, national, linguistic, or otherwise. While scripts are applied in all social groups, across all potential means, modes, and styles of communication, they are not applied in the same ways. The contents of a script and the precise measures of communicative competence involved will vary widely according to the local setting, participants, goals, norms, and so forth (i.e., the local culture). For these reasons, analyzing scripts and identifying their concomitant standards of communicative competence always necessitates carefully studying the local culture and the given circumstances.

The restaurant script described herein, for example, describes how a diner or server would behave in a typical North American restaurant. In other types of establishments in other parts of the world, the scripts for dining out might be quite different. The activities might be similar, but occur in a different sequence. For example, one might be expected to order and then pay for the food at the beginning of the visit, before a single bite is eaten. In other cases, the type of communication expected might vary a great deal. In some parts of the world small talk between the server and the diner would be considered natural; in other places it would be considered an unpleasant intrusion.

In fact, changing locales and entering new cultural settings are common moments for being confronted with new and unfamiliar scripts. Such scenarios are of great interest not just to cultural sojourners, but also to intercultural communication scholars, sociolinguists, foreign language scholars, and other social scientists who study language, culture, and social life. In these cultural moments we might notice right away

that the others present at the scene are not enacting the accustomed behaviors in the expected sequence. Perhaps we act according to our familiar scripts, yet find that others do not respond in the expected ways. We might make use of our scripts only to observe others responding with confusion, annoyance, or even anger. For scholars, the analysis of conflicting and/or competing scripts holds special intellectual appeal because it is a powerful entry point to documenting and understanding the larger cultural norms, premises, and rules reflected in an individual's or a group's cognitive scripts.

One excellent example of an intercultural communication study presenting strong evidence of cognitive scripts was conducted by Benjamin Bailey (1997) in Los Angeles, California. Bailey was struck by what he perceived as persistent notes of tension and misunderstanding in customer service interactions between Korean Americans and African Americans in local convenience stores. To better understand what was going on, Bailey used a combination of ethnographic methods (in-person observation, recordings of conversations, field notes, interviews) to collect and analyze data on these interactions. Bailey's analysis revealed that these two groups were communicating and interpreting the concept of "respect" in different ways, and that these differences led to misunderstandings. What's more, the two groups held different cognitive scripts for how a convenience store encounter between clerk and customer could and should proceed. Since each group interpreted the other's actions as violating the expected script, negative feelings resulted. Bailey's thought-provoking study reveals how the meanings attached to customer service scripts can differ between communities, even in the same geographic region or language. It also illustrates how subtly and powerfully the cognitive scripts for routine activities may differ. When they do, this can lead to communication misunderstandings or even conflict.

Bailey's study used conflict as an entry for analyzing people's commonsense routines, and it is a good model to follow for script analysis. Other entry points are possible, too. For example, one can begin by closely examining contradictory understandings of routines. What do people in the community consider to be the commonsense, normal, or proper way of engaging in the activity? What happens when someone does not follow the rules? What rules get broken, when, and why? Another approach is to start with a particular group of interest, whether a speech community, a community of practice, a virtual community, or another type of group. Alternately, one can select a particular *speech act* to examine. A speech act is a unit of communication that serves a specific purpose in the social world. Placing an order, making a request, lodging a complaint, and apologizing are all examples of speech acts. As this classification suggests, speech acts are typically labeled according to their function, and are therefore referred to as a kind of functional language. In a comparative study of five communities, Goldsmith (1989/1990) examined the speech act of gossiping, comparing and contrasting not only how gossip was carried out in each locale, but the functions that it played in community life.

Finally, one could conduct analyses of cognitive scripts by selecting a *speech event* or a *speech situation* to study. A speech event is a self-contained communicative occasions or activities, typically made up of multiple speech acts linked together (Hymes, 1972). Examples of speech events include eating a meal in a restaurant, giving a presentation, presenting testimony in court, or conducting a business meeting. One excellent

example is Pratt and Wieder's (1993) careful analysis of "speaking for others," a public speaking event held by and for members of the Native American Osage tribe. Pratt and Wieder effectively documented the cognitive scripts employed by tribe members when they engaged in the act of "speaking for others." In their exquisitely detailed report, Pratt and Wieder describe who is permitted to "speak for others" and why; how people arrange themselves in the speaking space; how requests to speak for others occur, and how the people receiving a request are expected to respond; expectations that govern how to speak for others, including what to say and what not to say; how audience members and other listeners are expected to comport themselves while someone speaks for others; and how the act of speaking for others fits within the larger context of Osage social interactions. A *speech situation* is a larger category of activity, such as customer service interactions, telephone calls, classroom interactions, public speeches, small-group deliberation, ceremonies (whether marriage, birth, death), and so on.

Regardless of the starting point, with the proper training a social scientist can learn to perceive, describe, and validate a group's cognitive scripts. A natural choice of methods is ethnography and/or the ethnography of communication, both of which enable researchers to look at communicative conduct in situ, that is, situated in the places where it occurs. To study cognitive scripts, researchers must ideally find and observe contextualized instances of live communication, carefully scrutinizing people's communicative activities (observation), and perhaps engaging in it themselves (participant observation). As the researcher does this, she or he must be attentive to how the communicative activity plays out, including the words said, the events that take place, the sequence of activities, and people's explicit and implicit expectations. Ideally the interactions would be recorded, then transcribed and analyzed. The researcher's own observations, preserved in jottings and field notes, are also an important source of information. Interviews with local informants can be used to obtain step-by-step descriptions of the processes in question, and to gather feedback on (and validation of) the findings. As the researcher scrutinizes and analyzes the data, she or he continually asks what script patterns are enacted, including the precise communicative acts that take place, by whom, in what order, and to what effect. Descriptive reports on the findings can even provide detailed comparisons of scripts used in different communities, settings, and cultures. In fact, there is always a need for studies of cognitive scripts and the situational communication situations that they are used in, and this work is of great value to scholars and practitioners alike.

SEE ALSO: Discourse Analysis; Emic Approach to Qualitative Research; Ethnography of Communication; Ethnography/Ethnographic Methods; Observational Methods; Qualitative Analysis Software (ATLAS.ti/Ethnograph/MAXQDA/NVivo); Qualitative Methodology

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