

The Chorus as Internalized Objects

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Abstract

This note stems from an experiment in which the theatrical device of Greek chorus serves as a model for interactions with a computational narrative [Strohecker et al.]. That experiment is largely structural: players' interactions unfold progressively finer detail about the story, but do not change the course of events or alter the characters. Players interact mainly by querying representations of chorus members, who comment on the narrative from different perspectives. Here I consider how the chorus model might be pushed further, such that viewers *become* chorus members in some more direct sense, thereby contributing to the choral aspect of the narrative system as it grows over time. My musings include a discussion of the psychological process of introjection and how it could guide thinking about system development based on players' interactions.

The Chorus as Internalized Objects

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This note stems from an experiment in which the theatrical device of Greek chorus serves as a model for interactions with a computational narrative [Strohecker et al.]. That experiment is largely structural: players' interactions unfold progressively finer detail about the story, but do not change the course of events or alter the characters. Players interact mainly by querying representations of chorus members, who comment on the narrative from different perspectives. Here I consider how the chorus model might be pushed further, such that viewers *become* chorus members in some more direct sense, thereby contributing to the choral aspect of the narrative system as it grows over time. My musings include a discussion of the psychological process of introjection and how it could guide thinking about system development based on players' interactions.

Imagine a virtual environment in which several simultaneously present players observe an enacted narrative and comment on it, in the manner of a theatrical chorus.

Forms of dramatic chorus appear in theater works of various cultures. In performances by Ladysmith Black Mambazo, for example, the chorus address audience and actors, providing both narrative continuity and musical entertainment. In ancient Greek theater, the chorus evolved through several eras and incarnations. Initially the chorus were separate from the actors in role, location, and appearance, but over time they merged more and more with the actors and the action. At first a collective, singing, dancing, and speaking together, chorus members gradually emerged as individual speakers. Often, a chorus leader spoke for the group or provided coherence for their diverse expressions. Originally anonymous, their uniform identities accentuated by masks, chorus members gradually appeared as personalities with particular views on issues and events. And, beginning as a theatrical device whose function was to express mood or tone, and whose contribution was to witness, comment, or clarify, the chorus gradually shared responsibility for delivering pieces of the narrative.

Thus the chorus may personify, magnify, subdue, transpose, interpret, retell, frame, or give perspective to the narrative action. Chorus members may fill in holes in the narrative, foreshadow the action, and reflect the action by re-enacting it in other modalities. The chorus may also act as a kind of buffer, an intervening layer that protects the audience from incidents too frightening to experience directly [Strohecker et al.].

A computational narrative system in which many players become chorus members could require a live coordinator, like an emcee or editor, to orchestrate or constrain players' interactions [e.g., Laurel et al.]. Indeed, this role would bear some resemblance to that of the traditional chorus leader. However, we could also consider the need for coordination as a design challenge in determining the nature of the

computational system. Properties of the virtual world could help to maximize the relevance and sensibility of players' remarks. Comments would contribute to a given enactment but could also be filtered and incorporated into the system, thereby influencing subsequent interactions.

For example, chorus members could be represented as masks that players don as they enter the virtual domain. While not mandating any particular comment or mode of interaction, the representational quality of each mask could suggest a view or mood to which the player would respond. The role would be interpretable by each player, but presumably some thematic commonalities would emerge as many players assumed the same mask over time. Thus the mask acts as a kind of filter, and interactions related to it accumulate through successive enactments.

This filtering and accumulating are comparable to the notion of "introjection" (also called "incorporation," "internalization," or "identification"), which psychologists describe in various ways. Thus the premise for developing our computational system through players' interactions draws from theories of psychological development [Stroecker].

In Sigmund Freud's model, our minds are in a particular state as we come into the world. They are like bundles of energy, instincts, drives – what he calls the "id." Gradually, through interactions with the environment, an infant begins to form a sense of itself and of others. The infant's mind is changing in the process: the id is giving rise to the "ego," and for several years the two will co-exist as the mind of the child. In Freud's theory, the mind undergoes another fundamental change at the time of the oedipal conflict (at about age six). The ego gives rise to the "super-ego," which will supervise the ego as it is influenced by the unchecked urges of the id. The child now has a "conscience," an internal model of the parents' values and castigations. The superego develops through a certain kind of interaction between child and parent, and mind and environment:

The basis of the process is what is called an 'identification' – that is to say, the assimilation of one ego to another one, as a result of which the first ego behaves like the second in certain respects, imitates it and in a sense *takes it up into itself*. [Freud, p. 56]

Two aspects of this explanation later became important to a group of psychoanalysts in what became the "object-relations" school: these included the concept of identification, and extensions of the idea of the so-called "split" that occurs in the ego as the superego develops.

The object-relations theory of human development is concerned with the importance of Freud's concepts of identification and object choice to the early relationship between infant and mother (or other caregiver), and to later relationships in the life of the individual. The theory makes use of several senses of the word "object," which sometimes refers to an actual person (or part of that person), sometimes to a representation of a person (which exists in the mind and has developed through a process of identification), and sometimes to an external object that substitutes temporarily for a person (while the process of identification is occurring).

W. R. D. Fairbairn, one of the foundation thinkers for the direction of psychoanalytic theory toward object-relations, makes use of the concepts of identification and object choice, but explains a process of ego-splitting that differs from Freud's. In Fairbairn's model, there is no id. An ego is present from birth, and early interactions with the caring figure play a crucial role in how the infant's ego develops. Fairbairn's discussion of the "internalization of the object" is concerned with the infant's way of coming to understand the alternating presence and absence of the caring figure. The frequency and duration of the absences increase, of course, as the child grows.

When alone, the infant is thought to keep in mind some image or internal representation of the caregiver. This representation develops when the infant is with the other person: their interactions include the infant's process of internalizing the person or part of the person. The internal representation that results is called an "object," which at first is relatively simple. However, given that the external version of the object sometimes satisfies the infant but sometimes does not, the object is perceived as having a double nature. Both the external and internal versions of the object are said to be both "exciting" and "frustrating" (or "rejecting"). As these two aspects are acknowledged, the internalized object becomes more complicated: its exciting and rejecting aspects "split off from the main core of the object" [Fairbairn, p. 224]. Then, because these aspects are accompanied by powerful, problematic feelings with which the infant struggles, they are repressed by the ego. Thus Fairbairn sketches a scenario of progressive splitting of internal objects as the external separation is enacted.

Melanie Klein, another influential theorist of the object-relations school, posits

... views of the inner worlds of children being populated by relationships with highly emotional figures derived from their experience ... a structuring within the self from the start by the infant's relationships between its unitary ego and the caring family figures.
[Sutherland, p. 37]

Experiences with caregivers lead to the infant's formation of internal objects that represent the figures, as well as to specific relationships with these inner objects.

D. W. [Winnicott] also describes the formation of emotionally charged inner objects. For Winnicott, the infant's process of separating from the mother occurs gradually and involves the progressive distinction of "me" and "not-me" objects. Here again, the "objects" are internal conceptions – of the mother and of the infant's own "self." The model is one in which the infant moves slowly from a sense of being merged with the mother (then understood as a "me" object), to a sense of autonomy as a separate individual (when the mother is understood as a "not-me" object). Winnicott sketches the dynamic using distinct *spaces* that are meant to represent concepts or states of mind – one for the "me," one for the "not-me." They are mediated by a space that lies between them, in which *play* occurs. Through play, the distinction of "me" and "not-me" comes to be understood – that is, the process of separation occurs.

"Transitional objects" assist in the process. The child substitutes something tangible (such as a blanket, teddy bear, or favorite toy) for the physical closeness to another person,

which by necessity lessens as the child grows. The substituted object is a sign of a process of psychological incorporation of the person. This incorporation is what enables the child to tolerate realities of the loss of the external relationship. What develops in its stead is an *internal* relationship, with a representation of the loved one. In other words, not only does an internal object develop, but some quality of *relationship* with that object is internalized as well.

When a physical object plays such an important role in such a highly charged emotional process, it is likely to have been carefully chosen, based on inherent properties that resonate with some sense of the person for whom it is meant to compensate, or the situation in which it is used.

Objects can play a comparable role in situations that do not involve a significant loss. Papert describes the importance of gears in his early thinking:

I became adept at turning wheels in my head and at making chains of cause and effect ...

I believe that working with differentials did more for my mathematical development than anything I was taught in elementary school. Gears, serving as models, carried many otherwise abstract ideas into my head. ...

Slowly I began to formulate what I still consider the fundamental fact about learning: Anything is easy if you can assimilate it into your collection of models. If you can't, anything can be painfully difficult. Here ... I was developing a way of thinking that would be resonant with Piaget's. *The understanding of learning must be genetic*. It must refer to the genesis of knowledge. What an individual can learn, and how he learns it, depends on what models he has available. This raises, recursively, the question of how he learned those models. Thus the "laws of learning" must be about how intellectual structures grow out of one another and about how, in the process, they acquire both logical and emotional form. [Papert, p. vi]

In Papert's language, structures "grow out of one another"; in Freud's and Fairbairn's, one structure "splits off from" another. Papert's description is more constructive in tone, but the notions of derivation are strikingly similar. Klein and Fairbairn describe how internal objects become infused with affect, emotional charge, as they are formed; Papert describes how they "acquire both logical and emotional form." The nature of the external object influences the interaction.

In our computational narrative system, objects handed from one player to another can act as a secondary filter, supplementing the choral masks. The form and function of the object tend to evoke particular kinds of responses, and the timing of an object's appearance can create shared moments of interest that further constrain interactions. Such constraints can be useful as the system interprets and incorporates aspects of players' interactions. The players, however, are more likely to feel amused than constrained. Objects become "conversational props" that enliven the experience [Bellamy et al.].

Piaget describes the importance of actions – observable, overt activities – as the operational "glue" that holds together certain structured understandings.

Piaget uses the term 'operation' to refer to an action or system of bodily movements, which has become internalised in the form of thought activities. For Piaget mathematical and logical operations are real actions, whether they be actions performed by a child when he moves beads along an abacus or, at the adult level, manipulations performed upon symbols in accordance with specific rules of a calculus. [Beth and Piaget, p. xvi]

[Turkle and Papert] assert that many older children and adults also prefer thinking with objects, rather than abstractions.

As players – chorus members – handle and exchange objects that enhance a narrative enactment, the system records aspects of their speech or other acts. The filtered recordings augment or change the nature of the mask, so that its subsequent wearers find slightly different cues to influence their interactions. Modalities for the changes depend on representations within the virtual world. For example, a player's speech prosody may affect facial expression of the mask. It may even cause a new mask to spin off, as a prop for future chorus members. Ultimately, the narrative system reflects a plurality of influences and becomes much richer than the original set of masks.

Indeed, this notion of multiple voices shaping the system reflects contemporary models of mind [Bakhtin, McGoldrick, Minsky, Mondykowski, Wertsch].

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