



# Humor, Social Networks, and Interpersonal Evaluations in Rural Brazil

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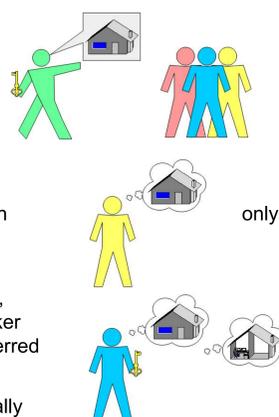
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## The Encryption Theory of Humor

The encryption theory of the evolution of humor hypothesizes that our capacity to construct jokes and to find them funny is an adaptation for honestly signaling compatibility in local cultural variation among potential long-term interaction partners (i.e., friends or mates).

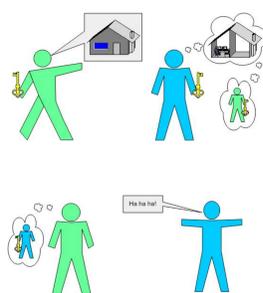
**I. Encryption:** Humor is understood by means of an encryption-decryption process.

- When a speaker makes a joke, she produces an utterance which affords multiple lines of interpretation.
- At least one of these lines is not understandable without access to some kind of shared prior information (propositional knowledge, preferences, or attitudes); this is referred to as the "key."
- If the listener does not have access to the key, he can infer the surface meaning of the utterance, however mundane or non sequitur it may be.
- However, if the receiver does have access to the key, he can "decrypt" the other lines of meaning the speaker included in the utterance; this is more commonly referred to as "getting" the joke.
- The fact that this other line of meaning was intentionally presented makes humor an honest index of possession of the key.



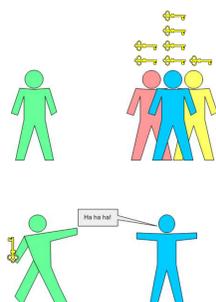
**II. Similarity:** Understanding humor entails an inference of similarity.

- By producing the joke, the speaker has honestly indexed her access to the key.
- By laughing in response, the receiver has reliably indexed his access to the key.
- Because of this mutual knowledge, the speaker and receiver can be reasonably confident that they resemble one another on the fact of their possession of the key.
- Those speakers and receivers with greater underlying resemblance will have more occasions for successful humor.
- If this process is iterated over many encounters, speakers and receivers can infer the relative similarity between themselves and various members of the local group.



**III. Assortment:** Successful humor encourages affiliation with compatible local peers.

- After multiple instances of humor, successful jokes have indicated the relative similarity of local group members to one another.
- Given that coordination is easier between similar individuals, humor will facilitate assortment for greatest compatibility in locally variable features of personality, knowledge, and attitudes.
- After this initial assortment, the use of humor will continue to maintain the social bonds.



## Field Site

To test these hypotheses, an ethnographic investigation of the use of humor and its role in social relationships was conducted at the *Assentamento de Boa Ventura* collective farm in Ceará, Brazil, from December of 2006 through May of 2007.

- The farm was collectivized in 1997; prior to collectivization, it was operated as a share-cropping plantation for decades, and has been the site of numerous anthropological investigations.
- Residents engage in both individual subsistence and commercial farming and ranching, and in communal cash crop farming, which funds the collective. In addition, some residents have formed dyadic commercial fishing partnerships.
- There are approximately 300 current residents, 64 of whom are *assentados* ("seat-holders") who represent their households at the collective assembly.
- Studies were conducted with the *assentados* only:
  - 60 male, 4 female
  - Ages 29 – 66

## Methods

63 *assentados* participated in two tasks which, together, test the Assortment component of the Encryption Theory:

**I. Social Networks**

- Photo sorting task with pictures of all other *assentados*.
- Participants ranked other *assentados* from least- to best-known.

**II. Interpersonal Evaluations**

- Rating task of 10-person representative sample of *assentados*.
- Participants rated targets on 7-point Likert scale on items relating to:
  - Sense of humor (e.g., "Tells good jokes," "Always laughs at your jokes").
  - Friendship (e.g., "Can rely on for help," "Is friendly").
  - Reputation (e.g., "Well-respected," "Lazy").

## Results

**I. Prediction:** Funniness will better predict social closeness than other features of sense of humor, reputation, or status.

Mixed-effects REML regression

Variable	$\beta$	p
Reliable	1.831	< 0.001
Friendly	1.471	0.004
Tells good jokes	1.357	0.003
Lazy <sup>1</sup>	0.335	0.404
Well-respected	0.182	0.681
Reputation for good jokes	0.162	0.718
Tells a lot of jokes	0.119	0.764
Butt of jokes <sup>1</sup>	-0.319	0.389
Always laughs at your jokes	-0.436	0.298

<sup>1</sup> Reverse-scored

**II. Prediction:** Of the purely dyadic evaluations, funniness will be more strongly associated with social closeness than other personal features.

Mixed-effects REML regression

Variable	$\beta$	p
Reliable	2.776	<0.001
Tells good jokes	1.690	<0.001
Lazy <sup>1</sup>	0.633	0.09
Always laughs at your jokes	-0.030	0.931

<sup>1</sup> Reverse-scored

**III. Prediction:** The dyadic evaluation of funniness will be more strongly associated with social closeness than the reputation for funniness.

Mixed-effects REML regression

Variable	$\beta$	p
Tells good jokes	2.175	<0.001
Reputation for good jokes	1.076	0.01

## Conclusions

Humor encourages assortment with long-term interaction partners:

- Although reliability and friendliness were stronger predictors of closeness in social network, how funny participants perceive the targets to be is a more significant predictor than reputational factors, even when limited to those features that derive specifically from dyadic experience.
- Importantly, it is the successful humor that impacts social closeness; frequency of joke-telling does not have a significant impact.

Funniness is in the eye of the beholder:

- Individual opinions of funniness were more predictive of social closeness than ratings of how funny an individual was considered to be by the community at large.
- This suggests that funniness is a property that depends both on the properties of the individual and of who is perceiving the individual, rather than merely a stable property that is perceived the same way by everyone.
- This is more consistent with the encryption hypothesis than with those models that claim humor is a global index of cognitive abilities.