Original Article

Sharing a joke: The effects of a similar sense of humor on affiliation and altruism

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ABSTRACT

Cooperation requires that individuals are able to identify, and preferentially associate with, others who have compatible preferences and the shared background knowledge needed to solve interpersonal coordination problems. This body of shared knowledge constitute a substantial proportion of what is called 'culture'. It has been argued that, for this reason, individuals prefer to associate with others who share their culture, and also that shared appreciation of humor provides a particularly effective means of identifying others with the relevant preferences and knowledge. The present experiment uses a 'dummy rating procedure' to compare the effects of sharing an appreciation of non-humorous (first lines of novels) and humorous (jokes) cultural stimuli on interpersonal affiliation, altruism and assessment. The results show that the degree of shared appreciation for both sets of stimuli had a positive effect on *Affiliation*; only humorous stimuli had an effect on *Altruism*; and neither effected the *Assessment* of others' personal traits. Thus, the results support the general theory that shared culture promotes affiliation, and provide evidence of the special role of humor in interpersonal relations.

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1. Introduction

The simplest kind of cooperation - mutualism, or collaboration - occurs in situations in which individuals are able to provide certain benefits to one another at no net cost to themselves. Collaboration requires that individuals are able to identify others not only with compatible preferences (for example, joint interest in a common project), but also with the shared background knowledge needed to solve interpersonal coordination problems. Coordination problems arise when individuals are uncertain about when, where or how to act in order to realise a mutual benefit. In game-theoretic terms, coordination problems occur when there are multiple mutually-beneficial equilibria, but where uncertainty exists about which of these other players will pick; as a result, players face an equilibrium-selection problem. Humans face a vast array of such coordination problems in everyday life, the solutions to which often involve recourse to a body of shared expectations of behavior - variously called norms, conventions, or social constructions - which serve as guides to local equilibria. These shared expectations constitute a substantial proportion of what is called 'culture' (Berger & Luckmann, 1966; Lewis, 1969; Schelling, 1960).

That different social groups arrive at different equilibria, and hence have different shared expectations about behavior, has been cited as part of the reason why individuals typically prefer to associate and interact with others of the same 'culture' (McElreath, Boyd, & Richerson, 2003). But even within social groups, people vary in their preferences, attitudes, knowledge and assumptions, and so individuals face the problem of choosing with whom to attempt to coordinate – the problem of collaborative partner choice. Identifying, and cultivating mutually-beneficial relationships with, such *sympatico* individuals takes up a substantial part of human social life, and arguably forms the foundation for human friendship (Curry & Jones Chesters, 2012; Tooby & Cosmides, 1996).

While this problem of partner choice could be solved by any cue of shared culture, it has been argued that cues of shared appreciation of humor – especially jokes – provide a particularly effective solution. As Flamson and Barrett argue with their "encryption model of humor", jokes consist of an explicit public utterance, and also an implicit "encrypted" reference to an item of background knowledge, and that only those who share this background knowledge have the "key" that enables them to decrypt, and therefore 'get' the joke. In this way, 'getting' a joke provides a hard-to-fake signal of shared background knowledge; and hence monitoring others' reactions to jokes and comparing them to one's own, provides a reliable means of identifying others with shared knowledge (Flamson & Barrett, 2008; see also, Lynch, 2010). As such, "intentionally produced humor provides "a means of broadcasting information about the self and acquiring information about others to aid in determining which peers would be most compatible as long-term partners, such as friends or mates" (p262). It follows that individuals who choose partners on the basis of a shared sense of humor are likely to be more successful when cooperating.

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Indeed, to the extent that the problem of partner choice was a recurrent feature of the social environments in which humans evolved, the selective advantage of using responses to humor (such as laughter) to help solve it may in part account for its evolutionary origin and maintenance. After all, humor is an ancient and universal feature of human nature, and – consistent with Flamson & Barrett's view – the role of humor in coordinating collaboration is a common theme in theories of its function. For example, it has been argued that laughter originally evolved among primates as a way to signal tolerance/acceptance of non-serious social interaction, thereby coordinating interpersonal 'play' (Preuschoft & van Hooff, 1997). It has also been argued that laughter later functioned as a group-wide "all clear" signal (the opposite, perhaps, of an "alarm call") intended to initiate the resumption of social activity (Gervais & Wilson, 2005). The coordinating function of humor may also explain why individuals laugh more in groups than they do when alone (Dezecache & Dunbar, in press; Dunbar et al., 2012). (Of course, humor and laughter may confer other, additional fitness benefits; for a recent review of related theories of the evolutionary origins of humor, see: (Kuhle, 2012)).

In any case, this 'social assortment' theory of humor that predicts that individuals will preferentially affiliate, and be willing to collaborate with, others who signal that they share their sense of humor. Flamson and Barrett apply this theory to the relationship between the sender/producer of humor and the receiver/consumer. However, the logic applies equally to relations among receivers/consumers. Witnessing other receivers/consumers - that is, members of the audience - respond in the same way to the same things should have the same effect.

To date, empirical research on the effect of humor on social relations has tended to focus on the effects of humor in the context of mate choice (Kaufman, Kozbelt, Bromley, & Miller, 2008). It has been found, for example, that 'a good sense of humor' is a universally-desired trait, amongst both men and women (Buss & Barnes, 1986), is one of the most commonly listed traits in lonely-hearts advertisements (from a re-analysis of data collected in (Pawlowski & Dunbar, 1999)), and predicts intelligence and mating success (Greengross & Miller, 2011). In this context, men tend to value humor appreciation in women, whereas women tend to value humor production in men (Bressler, Martin, & Balshine, 2006; Wilbur & Campbell, 2011). It has also been found that shared laughter can be a sign of mutual interest and attraction (Grammer, 1990; Li, Griskevicius, Durante, Jonason, Pasisz, & Aumer, 2009), and that a shared sense of humor is predictive of couples staying together (Murstein & Brust, 1985). In the context of same-sex dyads, research has found an apparent sex difference in the function of humor, with men more likely to make jokes at others' expense, and women more likely to make jokes at their own expense (Hay, 2000; Lampert & Ervin-Tripp, 2006). And it has been found that synchronous laughter is more common in established friendships (Smoski & Bachorowski, 2003). Previous work has also shown that a shared sense of humor is the best predictor of emotional closeness and self-reported altruism among existing friends (Curry & Dunbar, accepted). However, to our knowledge, there has been no experimental research on the effects of sharing a sense of humor on novel *collaborative* partner choice.

The present study tests the following predictions:

i) sharing appreciation for cultural stimuli will promote both partner choice (as measured by self-report measures of *affiliation*) and the initiation of cooperative relations (as measured by *altruism* in an economic game);

ii) sharing appreciation of *humorous* cultural stimuli (jokes) will have a greater effect on *affiliation* and *altruism* than sharing appreciation of *nonhumorous* cultural stimuli (first lines of novels).

The study also provides an opportunity to investigate whether the effect of shared appreciation is specific to collaboration, or whether it

has the more general effect of taking a positive view of the person. Hence the study will also test whether:

iii) sharing appreciation for cultural stimuli will result in a more general positive assessment of others overall (scored by measures of impression formation).

2. Method

2.1. Participants

A sample of working-age UK adults were recruited by a commercial participant-panel supplier (Maximiles; www.maximilesgroup.com). Participants were asked to complete an online survey in two stages. Participants were paid 200 iPoints (~£2) for completing both stages of the study.

2.2. Materials

Following Flamson & Barrett's model of "intentionally produced humor", jokes were chosen as humorous stimuli. The jokes were derived from a list of 'the 100 best jokes' (Steinberg, 1999). Jokes that were deemed potentially offensive, or too culturally obscure to the UK participant pool, were removed; the remaining 65 jokes were pre-tested on 55 undergraduates at the London School of Economics. The 18 jokes that produced the most divergent response – identified by a chi-squared test as showing a statistically similar number of funny/unfunny ratings – were chosen for use in the subsequent study.

By way of comparison, the first lines of novels exhibiting comparable complexity and interest were chosen as non-humorous stimuli. The lines were derived from a list of 'the 100 best first lines of novels', and pre-tested on 109 undergraduates, as before (100 Best First Lines from Novels, 2006). The 18 lines that produced the most divergent response – identified by a chi-squared test as showing the most statistically-similar number of like/dislike ratings – were chosen for use in the subsequent study.

Table 1
Descriptives for original and composite measures.

	Mean (se)	sd	Skew (se)	Kurtosis (se)
1. Get on well?	4.46 (0.06)	1.15	−0.30 (0.12)	0.26 (0.23)
2. Like?	4.50 (0.05)	1.09	−0.25 (0.12)	0.15 (0.23)
3. Enjoy working with?	4.50 (0.06)	1.17	−0.23 (0.12)	0.18 (0.23)
4. A lot in common?	4.18 (0.06)	1.27	−0.17 (0.12)	−0.23 (0.23)
5. Intelligent?	4.79 (0.06)	1.16	−0.33 (0.12)	0.02 (0.23)
6. Trustworthy?	4.48 (0.05)	1.06	−0.20 (0.12)	0.74 (0.23)
7. Popular?	4.39 (0.05)	1.05	−0.24 (0.12)	0.25 (0.23)
8. Attractive?	4.20 (0.05)	1.00	−0.31 (0.12)	0.83 (0.23)
Affiliation	4.41 (0.05)	1.03	−0.17 (0.12)	0.23 (0.23)
Altruism	285.19 (10.49)	218.96	−0.23 (0.12)	−1.66 (0.23)
Assessment	4.47 (0.04)	0.85	−0.24 (0.12)	0.89 (0.23)
Appreciation	9.35 (0.16)	3.43	−0.09 (0.12)	0.16 (0.23)
Appreciation (jokes)	9.57 (0.26)	3.88	−0.32 (0.17)	−0.09 (0.33)
Appreciation (first lines)	9.13 (0.2)	2.90	0.27 (0.17)	0.37 (0.33)

Table 2
Correlations of Affiliation items (Pearson above the diagonal, Spearman below).

Item	1	2	3	4
1. Get on well?	–	0.83**	0.64**	0.79**
2. Like?	0.80**	–	0.62**	0.76**
3. Enjoy working with?	0.64**	0.61**	–	0.60**
4. A lot in common?	0.76**	0.73**	0.58**	–

** Correlation is significant at the 0.01 level (2-tailed).