# Striking the golden section in stigma research

Jonathan D. Raskin on how the way we organise information could be the key to reducing the negative labelling of others

**Can the golden section, an odd but repeatedly confirmed hypothesis about how humans organise information, help us understand the powerful impact of stigma? Recent research suggests it might.**

The golden section hypothesis predicts that people will rate others positively 62 per cent of the time and negatively 38 per cent of the time. Does this pattern reverse when evaluating stigmatised people?

If people do use a reverse golden section pattern when rating stigmatised others, what are the implications for research and practice?

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Raskin, J.D., Harasym, M.T., Mercuri, M.A. & Widrick, R.M. (2008). Construing stigmatized identities: A golden section study. *Psychology and Psychotherapy: Theory, Research and Practice, 81,* 285–296.
The Fib-Phi Link Page: www.goldenratio.org/info/index.html

Nobody likes to see others unfairly stigmatised, but it happens more often than we wish to admit. Calling someone homeless, mentally ill, disabled or elderly – even when descriptively on the mark – can have serious consequences for those so labelled. Of course, sometimes people benefit by stigmatising others. In the 2008 US presidential election, John McCain worked hard to label Barack Obama as inexperienced, while Obama in turn tried to cast McCain as out of touch. Politicians know that half the electoral battle is successfully pinning a negative tag on one's opponent.

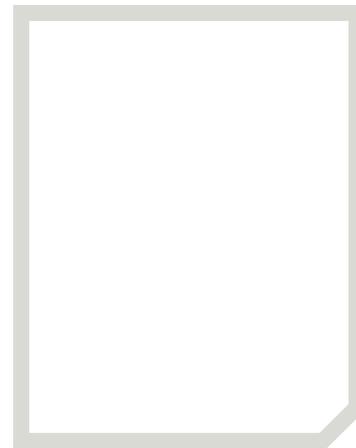But does stigma primarily stem from slapping harmful monikers on others? Surely how people behave plays a major role in whether or not they become stigmatised. That is, it is also important to consider how much a stigmatising label seems to fit the bill. Stigma researchers have studied – and argued about – these questions for over 40 years. Yet recent research on an obscure and rather strange hypothesis known as the golden section adds a new twist to the discussion. The golden section hypothesis suggests that stigma occurs when the typical way people evaluate others – using a ratio of 62 per cent positive ratings to 38 per cent negative – gets inverted. Such a hypothesis has interesting implications for thinking about stigma and how to effectively combat it.



**Half the electoral battle is successfully pinning a negative tag on one's opponent**

## A brief history of stigma research

It is probably reasonable to consider e 1960s and early 1970s the heyday of stigma research. The anti-psychiatry movement peaked during the 1960s when psychiatry was under assault from all directions. From the right came Thomas Szasz, whose libertarian-inspired politics led him to argue that mental illness was a nonsensical concept because minds could not be physically sick. For Szasz (1963, 1974), labelling people as mentally ill justified the nefarious purpose of silencing the socially disagreeable. From the left came the likes of R.D. Laing (1965), who – with chaotic results, by most accounts – tried to encourage more egalitarian mental institutions where the distinction between patient and doctor was blurred and the stigma of mental illness diminished. Both Szasz and Laing challenged the medical model. For them, diagnosing people as mentally ill was harmful, stigmatising and inappropriate.

Around the same time, other prominent thinkers were echoing similar ideas. Erving Goffman (1961) wrote about mental hospitals as 'total institutions'. His contention was that such places help produce and sustain the very behaviours they are supposed to remedy. Somewhat later, David

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Rosenhan (1973) conducted his famous study on being sane in insane places, in which he and a group of his students presented themselves for admission at local hospitals in order to see whether the staff could distinguish 'sane' from 'insane'. All of them were admitted for observation and assigned a psychiatric diagnosis. Even when released, none of these pseudo patients was correctly identified as an impostor. Instead, they were labelled as 'in remission'. It was a testament to the potentially long-lasting nature of arbitrarily assigned labels and it confirmed a lot of the scepticism popular at the time about psychiatric diagnosis. (As a historical side note, one of Rosenhan's pseudo patients was his student Martin Seligman. Seligman went on to develop positive psychology, an approach that downplays labelling people as disordered and instead focuses on the positive aspects of psychological functioning.)

In light of the era's scepticism about mental disorder labels, it is not surprising that sociologist Thomas Scheff (1999) proposed his famous labelling theory, which in its original form held that the assignment of labels actually produces, rather than describes, deviant behaviour. Scheff's theory proposed a very provocative and testable hypothesis, one which generated a great deal of research.

However, the strong form of Scheff's hypothesis did not hold up to empirical scrutiny. Researchers repeatedly found that labels are not assigned completely arbitrarily. That is, how one behaves matters a great deal. The research discredited the notion that deviant behaviour springs almost exclusively from being labelled. Deviant behaviour, not pernicious labelling, re-emerged as the primary rationale for labelling people.

Such findings muted enthusiasm for Scheff's theory, but also fitted with the shifting political winds. By the late 1970s and throughout the 1980s, the medical model of psychiatric diagnosis was reasserting itself. Interest in labelling diminished, and research studies on its impact became rare. The consensus was that folks like Scheff, Goffman, Szasz, and Laing had overstated the impact of labels. Diagnostic systems seemed better and more reliable, distinctions between deviance and disorder blurred, and – rather than not assigning labels in the first place – mental health professionals stressed educating people about their labels as the best way to reduce stigma.

> "In recent years there has been a resurgence of interest in labelling research"

The authors of the *Diagnostic and Statistical Manual of Mental Disorders* even chimed in, arguing that labelling people 'with' schizophrenia is less stigmatising than labelling them 'schizophrenics' because it distinguishes between people and the disorders with which they are diagnosed. Regardless, it seemed clear that the concerns of the anti-psychiatrists had been overstated. People got labelled because they engaged in deviancy, not vice versa.

But the story does not end there because just as it seemed silly to assume labelling alone leads to deviance, it also seemed ridiculous to insist that labels play no role in stigma. In recent years there has been a resurgence of interest in labelling research, led by social work researcher Bruce Link. Link's research challenges the idea that labels are irrelevant (Link et al., 1989). Yes, behaviour is central, but it is not the whole story. Labels also matter. For example, Link and his colleagues have conducted many studies showing that people diagnosed with mental illnesses are evaluated quite negatively by others – and not just by others unfamiliar with the mental health field. They have found that laypersons, the media and even mental health professionals respond negatively to those diagnosed with mental disorders (Alexander & Link, 2003; Link & Phelan, 2006; Servais & Saunders, 2007; Stuart, 2006). Combined with other studies suggesting that those diagnosed as mentally ill experience lower self-esteem (Corrigan & O'Shaughnessy, 2007; Kahng & Mowbray, 2005), Link's work makes clear that both behaviour and labels are important in producing stigma.

Link and colleagues' research sheds light on how the amount and kind of exposure to stigmatised people impacts responses to them. Interestingly, even without having ever encountered stigmatised people, others evaluate them negatively – as if people have a default way to organise information about others in the absence of direct exposure to them. It is here that the golden section hypothesis might prove useful in understanding how people organise their perceptions of stigmatised, as well as non-stigmatised, others.

## Stigma and the golden section

Fascination with the golden section, or golden mean, can be traced all the way back to the Pythagoreans. What is the golden section? Most simply, it is a mathematical ratio – represented by the equation $X/Y = Y/(X + Y)$ – that, for reasons unknown, people find most aesthetically pleasing. Evidence of the golden mean's aesthetic desirability abound. Scholars have long debated its influence, with many arguing (sometimes controversially) that art, architecture and people consistently judged most beautiful incorporate dimensions consistent with the golden mean (Huntley, 1970; Livio, 2002).

Intrigued by the golden section's prevalence, psychologists like Jack Adams-Webber and John Benjafield began studying in the 1970s whether people use it to organise their perceptions of others. In psychological research, the golden section is the assignment of evaluations to phenomena in a manner consistent with the $X/Y = Y/(X + Y)$ equation, which mathematically results in a ratio of 38.2 per cent negative ratings to 61.8 per cent positive. 'Positive' and 'negative' should not be confused with 'good' and 'bad'. Instead,

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they correspond to the ancient Chinese notions of Yin and Yang (Adams-Webber, 1977). In language, positive adjectives usually developed first. They also occur more often and are easier for children to master. The idea is that human cognition is organised in a 'tension of opposites' (Benjafield & Adams-Webber, 1976), with one pole developing first and generally being seen as 'positive' – that is, rated more positively than negatively along dimensions of evaluation, potency and activity (Osgood, 1979). Knowing which terms are positive and negative tends to be intuitive, though people generally agree about it (Osgood, 1979). For example, the word 'champion' has positive connotations along all three dimensions, while the word 'beggar' has negative connotations across all three dimensions; other terms may only have positive or neutral connotations across one or two of the dimensions, but as long as the overall ratio remains positive, the term is experienced positively (Osgood, 1979).

Another way to think about the golden section is in terms of background and foreground, with positive attributes constituting the foreground against which negative attributes stand out. The positive constitutes the original whole against which the negative is distinguished. This possibly explains why people pay more attention to negative news than positive news. Positive goings-on blend into the background, while negative occurrences stand out against the otherwise humdrum positive backdrop. This is why television news channels get better ratings when things don't go as planned. The usual and expected simply isn't as newsworthy.

Though nobody is sure why, the golden section hypothesis has proved itself to be incredibly robust. Research repeatedly finds that when people rate others using adjective pairs with clear positive and negative ends, they do so according to the golden section ratio. The golden section hypothesis holds when people rate acquaintances, activities, unfamiliar faces, imaginary people with nonsense syllables for names, and even cartoon characters (Adams-Webber, 1977; Benjafield & Pomeroy, 1978; Lee & Adams-Webber, 1987; Lee, 2006). Why the golden section ratio is so robust remains unresolved, but it seems reasonable to speculate that it provides a default way to organise information when lacking prior experience.

Psychologists coming from a constructivist perspective have speculated that golden section research lends support to the central tenet of constructivist psychology, namely that how we organise experience is as important as, or more important than, events themselves. Some have even suggested that the human mind contains an 'algebraic processor' for ordering and arranging information (Lefebvre et al., 1986). If so, then golden section research potentially provides indirect empirical evidence of this processor at work.

A few studies have examined whether the golden section holds for people diagnosed with mental disorders. For example, one study found that people with thought-disordered and non-thought-disordered schizophrenia diagnoses evaluated both acquaintances and objects using the golden section ratio (Kahgee et al., 1982). Another study showed, with some minor variations across diagnostic categories, that psychiatric outpatients used the golden section ratio when rating themselves (Badesha & Horley, 2000).

However, several students and I carried out a recent study that took things in a new direction, one relevant for labelling research. We examined whether or not a 'reverse' golden section ratio serves as a default way to organise positive and negative information when evaluating stigmatised people (Raskin et al., 2008).

The basic idea behind the study was simple. Typically, the golden section consists of negative information in the foreground against a background of positive assumptions. But what if foreground and background get reversed? What if negative information is the baseline against which positive information stands out? Isn't it possible that people become stigmatised when the ratio of positive to negative information is inverted? It doesn't matter whether this ratio gets reversed based on how someone

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behaves or how someone is labelled. Either way, it was hypothesised that once positive attributes stand out against a solid backdrop of negative assumptions, stigma is the result. So our basic research question was this: Is it possible that stigmatised people are rated according to the golden section hypothesis, but in reverse?

We asked undergraduates to rate nine different identities using 12 adjective pairs, each with a clearly distinguished positive and negative pole. What we found confirmed our expectations. When rating 'stigmatised others' – in this case people labelled 'mental patient' and 'homeless person' – participants did so using a reverse golden section pattern. That is, students assigned positive adjectives to stigmatised people roughly 38 per cent of the time and negative adjectives roughly 62 per cent of the time. This was the first empirical evidence for a reverse golden section.

What are the implications of this finding for stigma research? It suggests that people attribute both positive and negative attributes to stigmatised individuals, but in a manner where negative qualities are assumed and positive ones stand out as striking and unique. This implies that attributing a positive characteristic to a person labelled as mentally ill or homeless may not suffice as evidence of a non-stigmatised perception. To the contrary, the very reason a positive quality may warrant comment is because it comes as a surprise. In observing that 'Jimmy is very neat', one may simply be noticing something that stands out. After all, if Jimmy is diagnosed with a psychotic disorder and assumed to be low-functioning in most domains, his clean room may indeed seem striking. That is, his neatness emerges as the figure against a background of negative assumptions. In evaluating people's responses to stigma, it is not enough for them simply to express positive sentiments about labelled individuals. It is the ratio of positive to negative attributions that matters. Reducing stigma may not be about eliminating all negative perceptions and replacing them with positive ones. From the perspective of golden section researchers, it is about altering the ratio of positive to negative evaluations so that they shift towards a traditional, not reverse, golden section pattern.

In some respects, the reverse golden section finding is counterintuitive because it says that positive aspects of stigmatised people actually stand out, while negative

aspects fade into the background. However, when something stands out, that means it is seen as the exception rather than the rule. Stigma may best be conceptualised as occurring when negative assumptions form the baseline against which positive ones seem conspicuous. Only when positive attributes are taken for granted does stigma recede.

The golden section hypothesis may also be able to shed some new light on the old-time debate about whether it is labels or behaviour that matters most when it comes to generating stigma. Recent stigma research, exemplified in the work of Link, has upheld the importance of both behaviour and labels. The golden section hypothesis adds theoretical weight to these findings because it implies two things. Firstly, when lacking previous experience with something, people evaluate it using the golden section ratio. The golden section provides a basic framework for organising information in lieu of much else to go on. Whether a traditional or reverse golden section pattern occurs depends on whether negative or positive attributes form the background against which other information is contrasted. Secondly, as people have direct experiences with others, they no longer need to rely on the golden section ratio and instead often base their evaluations on the lessons of their experience. Therefore, stigma may be reduced by helping shift the ratio of negative to positive evaluations from a reverse golden section pattern towards a traditional golden section pattern. It may also be reduced by increasing positive exposure to stigmatised people. After all, the more positive experience one has with someone, the more one's evaluations are likely be based on that experience rather than on the reverse golden section's default ratio for organising information.

"Only when positive attributes are taken for granted does stigma recede"

## Refining the hypothesis

The reverse golden section hypothesis may prove of great interest to future stigma researchers, as well as clinicians working to reduce stigma in everyday practice. It provides a new theoretical rationale for considering past stigma research findings, one that tries to balance the impact of behaviour and labels. It also offers the interesting idea that reducing stigma is not about eliminating negative perceptions, but shifting them from the background to the foreground.

Research should continue to explore whether the golden section is relevant to understanding stigma. To wit, one of my graduate students recently completed a thesis in which she explored whether people use the reverse golden section to judge the ageing, a population that youth-oriented Western culture often stigmatises (Widrick, 2008). Participants in her study did use a reverse golden section when rating labels for 'elderly person' and 'senior citizen'. However, 'retired person' and 'grandparent' did not produce a reverse golden section. This suggests that different labels evoke different evaluations. This student also tried to replicate the finding that 'mental illness' and 'homeless person' evoke a reverse golden section rating pattern; although these labels did receive a majority of negative ratings, they did not produce a golden section pattern. Given that participants in her study were rating other labels that did evoke a reverse golden section pattern, perhaps whether a reverse golden section occurs or not depends on what other labels are also being rated? Either that or the reverse golden section is not as robust as initially thought.

Future research should explore precisely under what conditions reverse golden section ratings are likely to occur. Such research should also examine whether the reverse golden section reflects stigma or mere dislike – and whether there is even much difference between these concepts! For example, disliking a rival football team might evoke a reverse golden section (this is research that hasn't been done, so we don't know). However, the cleavage line between disliking and stigma may not be so distinct. After all, people often do stigmatise those they really dislike, which is why ethnic rivalries (as well as sports rivalries) often lead to demeaning and dehumanising those seen as 'other'. Researchers should also look at whether the reverse golden section can account for localised stigma unique to particular social groups.

Given that studies on stigma and the reverse golden section are so new, there are many fascinating and important questions to be examined about the relationship between them.

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