**Stickman Logic**

**1. A program for the beautification of logic**

It has been argued that a major obstacle to the development of logical rigour in a formal mode is the lifelessness of an argument expressed as a mere handful of squiggles and chicken feet (cf. Searle [1980]). To illustrate this alleged lifelessness, we note that the following expresses a logical truth

P -> Q .->. ~Q -> ~P

but does so in a drab, Spartan way. What are P's and Q's, besides things that students are admonished to mind for reasons they know not what? Indeed, the main division between the so-called Continental and Analytic traditions has been disputes over whether the task of being unclear should be carried out in natural language or in a formal system.

Below we develop a formal system equivalent in power to the usual sentential logic, but deployed in a humane and aesthetic framework.

**2. Formalism with a human face**

We define the following symbols as the five logical constants negation, conjunction, disjunction, conditional, and biconditional: [Necessarily graphical symbolism allows the hegemony of pixels to oppress users of non-graphical browsers. -pdm] *, *, *, *, and *. We then define a separator (*) and symbols to represent propositions: *, *, *, *, etc.

We may define a well-formed formula (wff) of Stickman Logic in the usual way.

1. Any atomic proposition is a wff.
2. If * is a wff and * is a sequence of *'s longer than any such sequence that appears in *, then *** is a wff.
3. If *, * are wff's and * is a sequence of *'s longer than any such sequence that appears in either * or *, then ***** is a wff.
4. If *, *, * are as before, then *****, *****, and ***** are wff's.
5. All and only wff's can be generated from the above rules.

Just as we may sometimes omit parentheses from the usual propositional calculus, we will omit *'s from Stickman Logic where possible. We further define a proof theory and semantics for Stickman Logic in the obvious way. Thus, we replace the inaccessible formula above with a formally equivalent but aesthetically superior truth:

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There remain several difficulties, which we address briefly in the remaining sections.

**3. Begriffuntvolkschrift**

It is a serious shortcoming of the system that it only treats the propositional calculus. We acknowledge that a predicate generalization of Stickman Logic-- a logic not of mere relations, but of human relations-- will necessarily be a goal of further work in the field.

**4. Modern logic meets modern art**

The limits of typography and notation may be seen as barriers to the new logic. This objection takes two forms. First, setting type with Stickman Logic may increase the costs of publication. Logicians already working within a narrow margin of profit may thus reject its material implications. With the increasing use of digital technology, however, this argument seems specious. Second, the symbols of the new logic require more pen strokes than the old symbols. Writing by hand, in this sense already *digital*, must be done with an eye to economy.

Both these limitations may be overcome by, where necessary, writing with the old symbols but understanding them as abbreviations for the symbols of Stickman Logic. We may write P v ~P or again ~..Q.&.~Q , but we will be mindful that these are mere shorthand for **** and ********* . We thus reach a point at which the *same* symbols that codified dehumanization, now understood in a different way, embody the humanistic insights of Stickman Logic.

**5. From modern logic to postmodern logic**

The teaching of science and mathematics must be purged of its authoritarian and elitist characteristics, and the content of these subjects enriched by incorporating the insights of the feminist, queer, multiculturalist, and ecological critiques.  
(Sokal [1996])

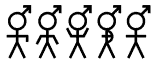
We recognize that Stickman Logic qua Stick*man* embodies certain patriarchal assumptions about the nature of right thinking. This critique is easily addressed, but hides a deeper critique inside itself. Although Stickman Logic may be generalized so as to embrace pluralism, the development of a generalized Stickbeing Logic would only mark a return to the quest for a Univeral Logic of Sticks. Collapse into this phallologocentric quest may ultimately render Stickman Logic impotent as a tool of liberation.

**Postscript- 2001**

It is hard to say what has happened to the new *Stückmenschen Wissenschaft* in the ten months since this paper was originally released. One may get a sense of the *stückgeist*, however, by looking at any of the further work that has been done. Consider, for instance, the following letter which we provide in its entirety.

April 10, 2001  
Mr./Ms. Magnus:

I believe I've solved your patriarchal problem with Stick[person] Logic. Attached is an image in Graphical Interchange Format showing replacement symbols for the five logical constants. Note that all are now sexually ambiguous, showing both male and female characteristics. In an additional bow to diversity, the negation constant is gay, and the conditional is pregnant. Thus these symbols also speak to freedom of sexual preference and the power of motherhood.



There may, as you suggest, be some problems with expressing these typographically. But -- as you also pointed out -- the use of the old symbols as abbreviations overcomes this difficulty. Better still, the old symbols now "[incorporate] the insights of feminist, queer, multiculturalist, and ecological critiques." (The use of Egyptian symbols for male and female addresses the multiculturalist insight, the use of stick symbols in general -- representing a return to a simpler life -- expresses the ecological insight.)

One question remains: in "[embracing] pluralism" does this new "Stickperson Logic" truly "mark a return to the quest for a Universal Logic of Sticks"? If so, whether our new symbolism will "ultimately render Stick[person] Logic impotent as a tool of liberation" remains to be seen.

Sincerely,  
Charles F. Munat  
Seattle, Washington

One must applaud this extension of the insights of the original paper and be heartened by Munat's suggestions. Nevertheless, there is a lingering suspicion that this logic is "impotent as a tool" for much of anything. Munat notes in other correspondence that although Stickman Logic "was effectively stillborn... [it] should be accorded the gravity that is its due." It can ask for no fairer a hearing than that.